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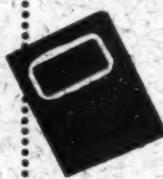
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The Editor —

National Editor
Mr. Kenneth E. Dunlap, Navy
Bureau of Naval Weapons
Washington 25, D. C.

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REPORT (Second Installment) ON THIRD NATIONAL CONVENTION
of the
AMERICAN SOCIETY OF MILITARY COMPTROLLERS

22 October 1959

Theme: Ten Years of Title IV - Public Law 216, Accomplishments and A Look Forward - Kenneth E. Dunlap, Convention Reporting Committee.

Mr. Lawrence J. Powers, Director, Defense Accounting and Auditing Division,
U. S. General Accounting Office

I am honored to be here today and wish to express my appreciation for the opportunity to meet with your Society at this year's annual conference. Some of you might recall that I participated in your first national convention just two years ago and discussed the organization, programs and operations of the Defense Accounting and Auditing Division of the General Accounting Office which was established by the Comptroller General of the United States in the spring of 1956.

At the outset I wish to commend the American Society of Military Comptrollers for their many efforts in working towards the improvement of standards of performance in the conduct of the financial management function which is so essential to an efficient and effective operation of our Armed Forces.

Introduction

This year I have been asked to give an overall critique on the accomplishments in financial management under Title IV, Public Law 216, in the past ten years as seen from the vantage point of the General Accounting Office, and to include our thoughts regarding future developments which might contribute to the strengthening of financial management in the Department of Defense. I notice that the Honorable John M. Sprague, Deputy Assistant Secretary of Defense (Comptroller), will speak this evening on his views of the accomplishments under Title IV and achievements yet to be sought, which I am sure will be extremely interesting to all of us.

Taking an inventory of accomplishments on a ten-year basis, in the light of the practical considerations involved in current programs and operations, is extremely difficult. We in the General Accounting Office, from our experience, may offer some limited evaluations on the progress during this period or, perhaps more importantly, some independent thinking and suggestions regarding future developments.

Before starting on the subject assigned to me, I think you should know how we in the General Accounting Office feel about the subject of financial management. Congress and the President of the United States have given to the Department of Defense the most important mission to be performed by any Government

agency. The accomplishment of that mission is dependent on all of the constructive assistance that it is in anyone's power to give. Competent financial management is an essential and important ingredient of that assistance and we must all do our share.

Speaking of doing one's share, we must, in any review of the past ten years, recognize the outstanding leadership contributed by the Honorable Wilfred J. McNeil, the principal author of Title IV, the first and, as of now, only Comptroller of the Department of Defense authorized by that title. His responsibilities and effectiveness during the past ten years in relation to the preparation and execution of the huge defense budgets have been tremendous. His strong leadership in the other areas of financial management has been widely recognized both in the Government and outside the Government. We all know he will do an outstanding job in his new assignment.

The Relationship of Title IV to Other Basic Legislation

Before discussing the concepts of Title IV we might take a little time to consider Title IV and its relationship to collateral legislation. This legislation was included in the 1949 amendments to the National Security Act of 1947. It was passed with little controversy and with predictions of success. The following year, 1950, the Budget and Accounting Procedures Act of 1950 was passed under almost similar conditions. In 1956, Public Law 863 was passed embodying the requirements of accrual accounting, cost-based budgets with consistent account structure for such budgets, and simplification of the allotment structures. These three pieces of legislation approved in the past ten years, together with the Budget and Accounting Act of 1921, form a package in the areas of fiscal organizations, budgeting, accounting, auditing, and reporting. It is rather difficult to consider one piece of legislation without considering the others. For example, as you know, Title IV places broad responsibilities on the Comptroller of the Department of Defense, subject of course to the authority, direction, and control of the Secretary of Defense. He is responsible for establishing and supervising the execution of

principles, policies, and procedures to be followed in connection with organizational and administrative matters relating to budgeting, accounting, internal auditing, and reporting. The Budget and Accounting Act of 1950 places the responsibility on the Comptroller General to prescribe the principles, standards, and related requirements for accounting which the Comptroller, Department of Defense, shall use as his guidelines in performing his delegated duty from the Secretary of Defense under Title IV. The 1950 act goes on to provide that the accounting systems designed by the Department under these guidelines shall be approved by the Comptroller General when deemed by him to be adequate and in conformity with the principles, standards, and related requirements that have been prescribed by him.

Our discussion this morning, therefore, is concerned primarily with the improvement of financial management within the framework of these several basic statutes.

Magnitude of the Job

After the passage of Title IV with the justifiable enthusiasm of "now things are going to be different," the problems of actual war in Korea for a period of about two years were not conducive to the more commonplace things of improved budgeting and accounting. That was a period of getting back into wartime procurement and combat operations. After that experience we knew full well that the costs of defense preparedness for the years ahead were going to be at previously inconceivable peacetime levels. That preparedness should be planned and executed in a manner whereby the Department and Services would obtain the greatest results from the tremendous sums of money entrusted to their administration.

The role of financial management, and how it would be implemented, was the subject for discussion and planning by some of the best qualified people inside the Department of Defense and in private industry. The Second Hoover Commission and other outstanding advisory groups have made valuable contributions. There is no need for me to tell you of the tremendous task and responsibility placed on the Secretary of Defense. The problems connected with running this colossal operation, with no counterpart in the world today, are a challenge - and an extremely complex one. Every activity known to our way of life can be found somewhere in this military complex. The mere task of meeting the tremendous payroll would not be within the experience of our most experienced industrial comptrollers.

To achieve even just a workable system of financial management can never be accomplished over night or even in a short span of a few years. The fact that it must be built around

peacetime operations but be immediately adaptable to combat conditions is a unique requirement. Plans and prototypes change many times and performance tests are required just as they are with other military programs. In other words, an actual operating plan must be adequately tested out before it is acceptable for installation world-wide and even then deficiencies will crop up needing correction.

A degree of flexibility is an essential ingredient in any system of financial management even though there is something magical about uniformity to accountants, auditors, and financial advisors. This flexibility because of the various operational problems must be permitted within the framework of a set of sound and basic financial management concepts. Even though there may be disagreements from time to time as to the best mode of implementing some of the basic financial management concepts, I am sure that there is unanimous agreement among those here that the expression of these concepts in the laws being discussed today represent the sound and basic financial management needs of the Defense establishment.

Comptroller Organization

Having been exposed to these developments both from within and without the Department of Defense, I would be remiss in not addressing myself initially to the accomplishments which have been made by the comptroller organizations. I think it would be reasonable to state that the basic organizations were born in an era which found us relatively ill-equipped to deal with these important responsibilities involved in financial reform. There was a natural suspicion generated by the term "comptroller" which led many of the responsible commanders to the conclusion that the function of the person with this title was actually to control.

In the early days following enactment of Title IV, the acceptance of the comptroller concept evolved slowly and largely through the dedicated efforts of the responsible officials who I believe had a practical realization that only through effective demonstration could this concept succeed and become effective. These officials, scattered throughout the Departments of the Army, Navy and Air Force, quietly and effectively established specific action programs so as to bring about the recruitment of qualified personnel, instituted training programs, and, more importantly, worked diligently and hard throughout these years so as to bring about a diminution of the suspicions and fears of operating personnel, and the establishment of effective working relationships as a team effort at the various levels of operations.

We are all aware that this program of self development and improvement is neither completed nor perfected in any area of financial management.

As we see it, the improvement that has

been brought about in the past ten years through development of a spirit of mutual confidence has been achieved through the desire and will to provide a more effective service to management relating to the financial aspects of the various military program processes.

Occasionally we see problems which generally are created because of the enthusiastic nature of an individual or group, or problems which raise the emotional thermometer. Through our work, particularly in recent years, we have observed a sincere appreciation of the services and efforts of the comptroller organizations by a constantly growing number of commanders and responsible managers. You men and women meeting here today as members of the comptroller organizations established under Title IV have made these contributions to financial management.

Working Capital Funds

We cannot discuss the accomplishments of the past ten years under Title IV, without giving due consideration to the provisions of that section of the title which authorized the Secretary of Defense to require the establishment of working capital and management funds in the Department of Defense.

Numerous stock funds and industrial funds have been installed under this provision and additional appropriate instances may develop where this is the most practical means of accomplishing a desired objective.

As I recall, approximately \$10 billion of inventories and other assets are now carried under the departmental stock funds for the Army, Navy, Marine Corps, and the Air Force. Annual purchases approximate \$5 billion and sales and other revenues amount to slightly in excess of \$5 billion. The major categories of inventory under accounting control through these funds include the singlemanager inventories of clothing and textiles, subsistence, and medical and dental materials, and also the sizable stocks of ordnance-tank-automotive supplies, fuels, and other general supplies.

Over 125 separate installations and activities are managed under the industrial funds capitalized at around \$600 million with operations of nearly \$2.5 billion annually. Such diverse commercial or business-type activities as the manufacture of ordnance and chemical materials, the building of ships and the operation of the sea and air transportation systems are now carried on under improved financial control systems. Here we find an area in which, with certain exceptions, there was initially only very limited progress primarily because of its newness and probably more importantly because of the skepticism of commanders and managers of its success. Again we find that actual application and demonstration of the utility of this management tool has had a salutary effect

upon its later acceptance for many important types of activities.

As you all know, industrial and stock funds have not been a panacea for good management. They have, however, provided a means for management to utilize these tools in improving local operating efficiency, procurement and production methods, and more effective financial planning of the programs. Additionally, and probably more importantly, it has made possible some real contributions to the practical demonstration of the financial results of policies and decisions which, in the light of better information, have been reconsidered so as to improve operating efficiency and effectiveness.

The use of working capital funds has been considered for application in areas in which there are honest differences of opinion as to their value. These differences of opinion have been accentuated to a considerable degree because of the lack of an integrated accounting system embracing the objectives and requirements of Public Law 863 and Bureau of the Budget Bulletin 57-5. Notwithstanding the practical difficulties that have been involved, the efforts directed to the establishment and operation of working capital funds have resulted in some significant improvements in both procurement and operations.

Development of Improved Financial Management Systems under Appropriations

With the enactment of Title IV, the Budget and Accounting Procedures Act of 1950, and more recently Public Law 863, there was provided a congressional expression of policy and executive direction to bring about the development and use of costs in the financial affairs of Government and other improvements in budgeting, accounting, and reporting practices for congressional control and administration and management within the Department of Defense as well as the Federal Government.

It is not my purpose to recite for you the many projects and programs that had to be undertaken within the Department of Defense by Army, Navy, and Air Force before any integration of the major elements of a financial management system as contemplated by these legislative provisions could be accomplished. These have been, as you know, identified as plans, systems, operations, procedures, projects, and various other terms. A great many of them have embraced all the comptroller functions and have extended into every major operational area in the Defense complex. Some of them have required years for development and refinement; others, perhaps less significant, have been completed in relatively shorter periods of time. For example, the present simplified appropriation pattern, which we consider a major achievement in itself, was as you

well know, not accomplished as the uninformed might envision by the passage of legislation and administrative edict which simply stated:

"There is hereby established one appropriation in the Departments of the Army, Navy, and Air Force, respectively, for military personnel and allowances, maintenance and operations, procurement and production, research and development, and military construction, etc."

Only those responsible for the accomplishment can attest to the major efforts and individual management and congressional problems that had to be resolved. I daresay that this might prove to be an extremely interesting story to all of us if it were practical to place in chronological sequence the discussions, considerations, and actions that were involved.

Yet this effort constituted one of the more important cornerstones of the basic foundation upon which it was necessary to plan and build the entire structure of improved financial management, in that it provided the basis and made possible the placing of major procurement and construction on a continuing or no-year basis. Further, we all recognize the significant savings in procurement and administration made possible by this action.

As I previously stated, our limited time this morning would not permit us to identify even the major individual efforts in the Departments in the fields of programing, budgeting, accounting, and financial reporting. The important point, I think, is that these individual efforts provided a practical basis for the development of policies and principles for an organized plan of improvement effort for financial management and the accelerated accomplishment of the objectives sought by legislation and related instructions of the President.

A considerable number of the individual systems and program segments have progressed to the phase in which they are compatible for integration within major operational areas; others have been only partially developed, and a considerable number are in the planning or pre-planning phase.

Department of Defense Directive 7040.1, issued on May 29, 1959, provides a sound statement of policies and principles for the establishment of financial management systems for operations and maintenance programs and for the preparation of specific time schedules for completion of such programs in conformity with Bureau of the Budget Bulletin 57-5, dated October 10, 1956. The Director of the Bureau of the Budget, the Secretary of Defense, and the Secretaries of the Army, Navy, and Air Force have all emphasized the importance of proceeding with the implementation of this program.

Internal Audit

We in the General Accounting Office have been particularly impressed and gratified with the progress that has been made in the internal audit area. There has been a concentrated effort to expand and develop the internal audit function in order to provide more useful and significant information to management. The increased scope of the reviews performed by the internal auditors in both the contracting and procurement area and in the area of operations of the Department of Defense provides responsible officials with objective appraisals of their operations which can pinpoint conditions requiring attention and action. This is a far cry from the scope of the audit effort during the World War II era which was confined generally to a review of a contractor's incurred and reimbursed costs or to determining that Government property was properly accounted for on the property officer's records.

The progress made in developing an efficient and effective internal audit has been matched by similar progress in achieving mutual understanding and acceptance between operating personnel and internal auditors. As we all know, there is nothing more frustrating to operating personnel and commanders than having to deal with an auditor who lacks a complete grasp and understanding of the function he is auditing. We have observed that in recent years the working relationships between the internal auditors and operating personnel have improved tremendously. Through the efforts of the departments and their respective officials there has been a concentrated improvement in the auditor's relationship with the operating personnel through a constructive approach by both sides in arriving at a practical solution to the problems highlighted as a result of the internal audit effort. We also partly attribute these improved relationships to a growing appreciation on the part of management that the role of the internal auditor, properly integrated as a part of the team effort, contributes significantly to improved efficiency.

There is one factor which I believe can make a substantial contribution to further improvement in the acceptance of the internal auditor as a part of the management team. This is a broader recognition of the respective roles of the internal auditor and the General Accounting Office. Although areas of common interest exist between the GAO and agency internal auditors, the final objectives and responsibilities differ in important respects. Internal auditing is an integral part of an agency's system of management control. In making our audits, we review the entire control mechanism within an agency, including the various provisions made by management for internal reviews or audits of the agency's affairs. If warranted, we may rely on the work of the internal auditors; however,

internal auditing is not in lieu of or supplementary to the GAO audit function but is an integral part of that assistance to the total defense mission we spoke of earlier.

I could recite many examples of achievements in the internal audit area but here is one I think we should touch on briefly. It is the internal auditor's role in examining military pay and allowances. Prior to Title IV and the Budget and Accounting Procedures Act of 1950, there seemed to be general acceptance of the proposition that overpayments in pay and allowances were inevitable. These acts placed definite responsibilities on all of us to do everything we possibly could to safeguard Government funds. Strengthening the internal audit and a proper utilization of audit results by management to improve internal controls was an important step in reducing the erroneous expenditures of many millions of dollars annually in military pay and allowances.

Error detection and reduction programs have been instituted by the military services with the objectives of discovering areas of error, making early recovery of erroneous payments, instituting timely corrective action to reduce overpayments, and improving the system of internal controls. This type of program, making effective use of the internal auditors' work, is a commendable effort and I am sure you share my anticipation that such programs will serve to reduce substantially overpayments in military pay. Military pay represents an \$11 billion program or about 1/5 of the defense budget, certainly a sizable amount warranting continuing audit and management attention.

Development of a Uniform Set of Cost Principles

The development of a uniform set of cost principles probably constituted one of the most difficult and complex problems to deal with in the whole area of procurement and financial management. We feel that the efforts of the Department of Defense and the responsible officials, which have extended over a period of perhaps five to six years, in establishing cost principles for use in all types of negotiated contracts with the Department of Defense have resulted in a major achievement.

We have always felt that it would be advantageous to have cost principles which are applicable to all types of negotiated contracts as we believe this will foster an atmosphere of mutual understanding among contractors and contracting officers of the various agencies. Moreover, it should ultimately lead to more effective negotiation and administration of Government contracts. I am not sure that all of you can appreciate or understand the considerable differences of opinion that existed among industry, the executive departments, and the Legislative Branch, and even among various

segments of these respective areas. This in itself constitutes an effective accomplishment of reconciliation of valid differences between procurement, contracting and financial officials, and auditors.

As is characteristic of almost any cooperative and constructive effort, compromises have had to be made in achieving progress in this area. There are certain details in these principles which we believe could be improved upon; however, we also recognize that certain refinements may be necessary in the light of our experience gained under actual operations conducted under these principles. We believe that it will be comparatively simple to deal effectively with these matters under the principles that are now in the process of promulgation.

Additional Improvements for Consideration

As previously mentioned, Department of Defense Directive 7040.1 provides for the development of action plans for maintenance and operation programs which involve:

1. Use of cost-based budgets for purposes of supporting appropriation requests and in administration and management of the department and all suborganizational units.
2. Support of the budget justification by information on performance and program costs by organizational units.
3. Use, insofar as possible, of a consistent account structure for purposes of programming, budgeting, and accounting (including reporting), based upon identification of programs and functions being performed, synchronized with the organizational structure.
4. Making of administrative subdivisions of appropriations on the basis of cost-based budgets.
5. Simplification of administrative subdivisions of appropriations with the objective of financing each operating unit from not more than one subdivision of funds from each appropriation affecting such unit.
6. Use of the accrual basis of accounting with financial accounting for property as an integral part of the system.

There have been considerable improvements made in the military construction and military personnel areas and, probably to a lesser extent, in procurement and production, and research and development. Therefore, we believe policies and principles covering the development of action plans should be provided as soon as feasible for these other major program areas. This should facilitate in the more effective coordination of efforts within

the Departments of operating and comptroller personnel.

Necessity and Importance of Continuing Review and Evaluation of Financial and Correlated Systems

Another important problem confronting both operating and comptroller personnel in the period just ahead is the elimination of outmoded and inadequate systems and practices. Custom and tradition are difficult to eliminate in any organization and new methods always have more skeptics than proponents. I believe it was Benjamin Franklin who counseled "Be not the last to leave the old, nor the first to embrace the new." While some of us may consider such an approach as being too cautious or conservative during this dynamic and challenging period, it is sound advice to consider in dealing with our problems and the progress being made. Initiative, ability, and enthusiasm carry us toward accomplishment of new and better ways, but it is the truly skilled technician who sees to it that a timely approach and effective action is taken on the practices and methods which have outlived their usefulness and value.

The need of such evaluations in which comptroller personnel should make a major contribution will become increasingly evident as the effectiveness of some of the current program developments and automatic data processing applications are attained.

Organization and Utilization of Information Needed in the Decision-making Process

Closely related to our preceding discussion is the problem of working towards a systematic integration of information which management needs and uses for decision making. The de-

velopment and installation of improved systems and the mechanisms the department or command uses for financial management must avoid any system being superimposed upon existing systems without specific plans for systematic integration.

The difficulty of obtaining complete, accurate, and understandable information to use in the decision-making process has been frequently and authoritatively identified as one of the greatest problems in administering the Department of Defense. Yet, we probably have more detailed and quantitative information being obtained and transmitted forward from bases, posts, stations, depots, and shore establishments than anyone would ever imagine. Unfortunately, we sometimes forget that the effectiveness of our financial reporting is measured by what management and the Congress need and use.

We cannot expect management to utilize financial data in the decision-making process unless and until it is tied in with other management information and operational data.

We believe there is an important need to establish promptly and effectively as an integral part of the development and improvement of the financial management program, a determination by management of what information is needed at the various echelons. Thereafter, action programs could be formulated for the purpose of obtaining a coherent, understandable and useful reporting mechanism on an integrated basis.

The comptroller organization of the Department of Defense is well equipped to make a significant and important contribution leading to the solution of this challenging and complex problem.

TEN YEARS OF PROGRESS

Presented by William F. McCandless
Assistant Director for Budget Review,

I am happy to join with you in observing the Ten Years of Progress which has occurred in financial management in the Department of Defense since the passage of the Title IV amendments to the National Security Act Public Law 216, 81st Congress. This law was the first action by the Congress stemming from the budgeting and accounting recommendations of the first Hoover Commission. These recommendations marked the beginning of a period of intensive concern with the Government's budgetary processes which has been going on for ten years, and is still continuing.

During this period there has been another study and series of recommendations by the Second Hoover Commission. A number of laws have been enacted to improve and modernize our fiscal procedures. In addition, a great deal has been done by administrative action to improve financial management in the Government. It has been a period of great progress for the Government as a whole as well as for the Department of Defense.

Most of the emphasis during this period has been on better congressional control of spending. This is a reflection of public concern about the size of the Federal budget. Even in 1949, budget expenditures were nearly \$40 billion — over four times what they had been ten years before. It was evident then that pressures on Federal spending were upward and that there was little likelihood we could return to the levels of taxes and spending which existed before World War II. Naturally attention was directed toward methods of improving the budgetary process so that it could be used effectively to hold spending to a minimum and to insure that full value would be received for every dollar spent.

Progress has been most marked in changes designed to provide a better basis for congressional consideration of the budget; i.e., improved budget presentation and support. However, these improvements have been accompanied by progress in the strengthening of financial management in the executive branch and, to a lesser extent, in the simplification of budgetary and financial procedures. To gain some perspective for a look ahead, I should like to review the developments in each of these areas.

Improved Budget Presentation and Support

Perhaps the most significant improvement in budget presentation in the last decade was the introduction of performance budgeting. Performance budgeting was, for all practical purposes, initiated for the Federal budget

as a whole in the calendar year 1949. While some activity schedules had been included in earlier budgets, the recommendations of the first Hoover Commission gave real impetus to performance budgeting. The budget document prepared that year—the budget for fiscal year 1951—was refashioned to introduce a program or activity classification for each appropriation, to introduce workload and other significant performance data in narrative form, and to make other related changes. Performance budgeting was recognized by enactment, in August 1949, of Public Law 216, applying to the Department of Defense, and by enactment in September 1950 of the Budget and Accounting Procedures Act, applying to the Government as a whole.

As time has gone on we have sought constantly to improve the product we put out for 1951. Activity schedules have been made more meaningful. Workload data has been introduced to an ever increasing extent. For a surprising number of appropriations, you now can find printed in the budget document either summary measures of work and performance or, where no single measure may be adequate, a whole series of workload measures. As a means of describing proposed and actual performance we have printed narrative statements of "Program and Performance." These attempt to give the reader a capsule summary of what the taxpayer may expect by way of performance with the money already appropriated and requested for the coming year. While there has been steady improvement in both workload data and performance statements, much still remains to be accomplished, and we expect to continue work to that end.

One of the most significant developments that began with the adoption of performance budgeting was the movement toward cost-based budget presentations. Ten years ago we were just venturing into this field with a cost budget for the Atomic Energy Commission. For the first few years of the decade there were only a handful of appropriations for which the accounting systems would allow production of a cost-based budget. Prompted by the recommendations of the Second Hoover Commission and the enactment in 1956 of Public Law 863, we have increased the number of cost budgets in recent years, and we now expect that in the budget under preparation we shall further increase the number of appropriation requests presented on a cost basis.

We have not as yet been able to present any of the Department of Defense military

appropriations on a cost basis, although they offer some of the best opportunities for worthwhile application of this type of budgetary presentation. We hope that the joint work of you in the Department, and staff of the General Accounting Office and the Bureau of the Budget, on your accounting system will soon reach the point where we can take this forward step.

We look upon costs as the best financial measure of performance. However, as I think you know, the cost basis of budget presentation does not exclude the presentation of data on obligations; a cost-based budget as we know it reflects costs for each activity or program, the change in selected resources already financed by the appropriation from the beginning of the year to the end of the year, and the total obligations being incurred under the appropriation. Congressional control remains on an obligation basis, while at the same time we get the advantages of having performance data on a cost basis, readily comparable with quantities of work performed.

Another new development, which has been incorrectly considered by some to be a part of cost-based budgeting, is that of accrued expenditure appropriations and limitations. The Second Hoover Commission, seeking a more positive control on the annual rate of expenditures, recommended that appropriations be made on an accrued expenditure basis. This recommendation led to the passage in 1958 of Public Law 85-759 providing authority for accrued expenditure limitations, alongside of appropriations made on a regular obligation basis. Such limitations would be intended to provide annual congressional review and control over the goods and services to be received by the agencies in a fiscal year. In last year's budget, accrued expenditure limitations were prepared for six accounts in four agencies as the initial step in the evolutionary approach to implement this statute. However, the Congress did not enact any of the proposed limitations. There has therefore been no opportunity to test the effectiveness of this particular recommendation of the Hoover Commission. Additional recommendations for such limitations will be made in the 1961 Budget.

The growth of revolving funds has been a marked characteristic of the past decade. Stock and industrial funds such as those created by Title IV of Public Law 216 were of course no innovation to the Federal Government. We have long had stock funds, such as the General Supply Fund of the General Services Administration, and we have had industrial funds, such as that of the Government Printing Office. However, we have seen a growth in both of these types of funds over the past ten years, with such new ones as the Bureau of Engraving and Printing fund, the National Bureau of Standards fund,

and the various funds of the Department of Defense. Similarly, in the field of public enterprises, we have seen the creation of such revolving funds as the one for the St. Lawrence Seaway Development Corporation, and the re-organized Panama Canal Company fund. While the creation of revolving funds is often not necessary to the improvement of accounting and financial disclosure, it can be used effectively to facilitate and control operations in selected cases.

Along with the creation of revolving funds has been an improvement in their budget presentation. Whereas ten years ago we measured performance only for the Government corporation revolving funds in terms of profit or loss, we now show financial performance with profit and loss statements as well as balance sheets and a statement of the source and application of funds for all revolving funds.

The development of accrual accounting to provide the necessary support for improved budget presentation and analysis has marked this decade. Such accounting is needed both for appropriation accounts and for revolving funds. Ten years ago most agencies accounted only for obligations and disbursements in the case of appropriation accounts. Now the majority of agencies continue to account on these bases, but at the same time record assets as they are obtained and liabilities as they are incurred. The accrual accounting which has been installed is intended to be fully integrated with accounting for obligations and disbursements. No one is advocating a dual system of accounting. What is desired is one system which develops all the information needed for management within the agency and for overall use in the Government as a whole.

Strengthening of Financial Management in the Executive Branch

The last ten years have been marked throughout the executive branch by a growing appreciation of the need for integrated financial management, by the growth of stature and effectiveness of the professional financial manager, and by the increasing delegation of authority to perform financial management tasks.

The concept of comptrollership, embodied in the Title IV amendments, has had great emphasis in the Department of Defense, but the past decade has also seen a growth of comptrollership elsewhere in the Government. And even in those cases where no one has been designated as a comptroller, I believe there has developed a more ready acceptance of the fundamental principles involved, namely, that budgeting, accounting, internal auditing, and financial reporting need to be more closely

integrated and coordinated, often with other administrative responsibilities, under a single official.

The Joint Accounting Program was only a year old at the time the Title IV amendments were adopted in August 1949. We have seen this program, involving joint leadership from the General Accounting Office, Treasury, and the Bureau of the Budget, come to full flower in the decade we are here observing. In the Budget and Accounting Procedures Act of 1950, Congress gave its full endorsement to the program and made it permanent. The achievements of the program can be seen in its progress reports, and I shall not take time to repeat them here.

There have been several actions taken in recent years to integrate budgeting and accounting more thoroughly at every level. In 1956, Public Law 863 made it a requirement for each agency to seek to have consistent classifications for accounting, budgeting, and financial reporting. One of the specific efforts of the Bureau of the Budget since 1950, embodied in Circular No. A-11 requirements, is to have adequate accounting support for the budget. More recently financial management improvement efforts under the Joint Accounting Program have called for an integration of agency accounting and reporting with the requirements of the budget process.

The Bureau of the Budget itself has undergone two reorganizations in the decade, both of them in the interest of better coordinated financial management. The first occurred in 1952, when the Bureau sought to integrate its concern for budgeting and program review, for administrative management, and for legislative analysis, by abolishing its older functional divisions and creating five new divisions where all these functional concern would be integrated in the Bureau's relationships with each agency. At that time four staff offices were created to give Government-wide leadership to particular phases of the Bureau's work. The second reorganization occurred in 1956, when a fifth staff office, the Office of Accounting, was created to give recognition to the importance of accounting as a tool of financial management. Hence, the Bureau of the Budget has sought to obtain greater integration and coordination of various tools of management in its own structure similar to the coordination which Title IV amendments sought to bring about within the Department of Defense.

As the standing and performance of the financial manager has improved, his opportunity for management has increased through the provision of greater latitude for administrative discretion and through the clearer definition and fixing of responsibilities in him.

Notable evidence of the increased opportunity for financial management is found in

the changes in appropriation structure of the Government over the last ten years. The budget prepared in 1949 eliminated 200 appropriation items compared with the previous budget, and another 50 were eliminated the following year. Over the succeeding years we have conducted a continuing program of refinement in this area, with the objectives of simplifying the financing and control of agency programs and providing increased flexibility in the use of appropriated funds. For the Department of Defense—military functions, for example, the number of appropriations has dropped from 96 ten years ago to 46 today. The changes in the Department of Defense made in the 1960 Budget provide even greater flexibility for financial management as well as improved budgetary presentation of the military programs.

Increased emphasis on the control of obligations has strengthened the role of the financial manager. Public Law 216 specifically provides for control of obligations in the Department of Defense. For the Government as a whole, control over obligations was tightened by the enactment of the revised Antideficiency Act in 1950. This law clarified and strengthened the basis for apportionments and reserves, and made mandatory the application of the apportionment system to nearly all appropriations and many other funds. It requires that the apportionments be adhered to in the administrative distribution of funds, and makes it mandatory for each agency to have administrative control regulations designed to prevent, and to fix the responsibility for, exceeding an appropriation, an apportionment, or an administrative subdivision of an apportionment. Regular reports to the President and Congress are required on violations.

The decade has also seen some redefinition and tightening up on the meaning of obligations. In 1950 Congress chose to redefine interagency obligations to cure abuses that had arisen with respect to keeping annual funds available beyond the fiscal year by advancing them to someone else's working fund. In section 1311 of the Supplemental Appropriation Act, 1955, Congress redefined much more carefully the concept of obligations. This definition formalized the concepts previously expressed in Comptroller General decisions and Budget-Treasury Regulations, and which most, but not all, agencies were even then observing.

Since 1949 the Treasury Department has given up its responsibility to control payments to keep them within the balances of appropriations and funds authorized by Congress. Responsibility for staying within available funds is clearly placed upon the agencies, and neither the Treasury disbursing officers nor the Treasury accounting personnel are responsible

for keeping payments within the available amounts.

At the same time there has been an effort to integrate agency accounting and treasury accounting, with the matter of payments and collections being the point of integration. This has been accompanied by a shift from the Daily Treasury Statement basis (checks paid) to the Monthly Treasury Statement basis (checks issued) as the basis for determining the budget surplus or deficit.

Simplification of Budgetary and Financial Procedures

Because of the emphasis on better budget presentation and support and on improved quality of financial management, we have added to rather than subtracted from the budget process in the last ten years. However, all during this time, especially in the last few years, efforts have been going ahead to simplify the budget process and financial procedures. These efforts have brought some recognizable results in improving overall procedures. It is my guess they have brought much greater total results in improvement at operating levels throughout the Government. Perhaps what is most important is that they have stimulated interest, developed know-how and established a firm base for future progress.

Indicative of the results of overall simplification efforts is the size of the budget document itself. Even though the 1960 Budget is a much more informative and useful document, it is nearly 300 pages or some 15 per cent shorter than the 1950 Budget. Some of this decrease was brought about by the reduction in number of appropriation items which I have mentioned before. The effect of this action on the size of the budget is, of course, only a small indication of its total effect in simplifying financial procedures in the agencies concerned.

Other across-the-board changes deserving of mention are the procedure allowing agencies to pay their old bills through "M" accounts in lieu of the surplus fund — certified claims procedure previously used; the simplification of the appropriation warrant procedure; and the elimination of the necessity for special reporting to the Congress, the General Accounting Office, and the Bureau of the Budget of balances of appropriations and funds under section 1311 of the Supplemental Appropriation Act, 1955.

I have referred before to simplifications accomplished by individual agencies working with the General Accounting Office, the Treasury, and the Bureau of the Budget in the Joint Accounting Program. They are impressive as reported in the progress reports on the Joint Program.

What's Ahead for the Next Ten Years

I am not going to attempt to predict in any specifics what may happen in the next ten years. Even with the most advanced electronic brain rather than my budgeteer's cloudy crystal ball, I'm sure I'd be wrong. However, there are some broad outlines of the road ahead which have been largely shaped by what we have done in the last ten years, and are now doing. I shall try to at least identify some of these and shall express some hopes about the future.

I think we can be sure that there will be a continuing congressional and public interest in improving the budgetary and financial process of the Government. So long as the budget remains as large as it is and tends to grow, every effort will be made to find a budgetary process which might help reduce costs and expenditures.

These efforts will put a greater burden on Federal financial managers. We shall ever need to improve the quality of information and the form in which it is presented to support budget requests. We shall need to improve our reporting of performance to show what the people of the country are getting for their taxes. We shall have to improve our systems of financial controls so that they are responsive tools for program management. Financial managers are by reputation people who like to deal with problems. In my opinion, we shall have enough problems to satisfy the most ardent.

These developments will add to the already great interest in simplifying the form of budget presentation, the budget process and accounting and reporting procedures all up and down the line. I feel quite sure we shall find we must seek every means for simplification in order to do the work we'll find it necessary to do. In any event, we shall need to give a great deal more effort to simplification than we have in the last ten years.

Fortunately the ground work for improving and, at the same time, simplifying agency financial management is well laid in many agencies and progress is under way in cooperation with the General Accounting Office, the Treasury, and the Bureau of the Budget, through the Joint Accounting Program. The job is to seize the opportunity and move forward as rapidly as possible.

There is no better example of the possibility of real progress than in the Department of Defense itself. The program for improving financial management is already established and the plan for future development outlined under the guidance of a joint BOB-GAO-DOD steering committee. The Bureau of the Budget has a great interest in this program. The Director has expressed himself to the Secretary of Defense in a letter dealing with the issuance of the Directive setting forth the program for improvement in the Operation and Maintenance

area as follows: "The directive has my whole-hearted support and we will be glad to assist in its implementation to the extent of our available resources. . . . I have asked Assistant Director John Beckett to give his continuing attention to it."

With the issuance of this Directive the program has really just begun. Directives in other areas are in the process of development by joint working groups. But these directives lay only the foundation for progress. Real progress will come with the implementation of the directives in the military departments. I need not tell you the results will depend on you who are here today, and your associates. I can tell you that from the standpoint of the Bureau of the Budget the job is highly important and that we hope it will be done with dispatch.

I have mentioned a number of times this morning the "viewpoint of the Bureau of the Budget." I have done this not because the Bureau of the Budget has an all-seeing vision from its viewpoint. Quite to the contrary, I have done it to emphasize the limits of the views expressed and in recognition that the view may be quite different from where you work. Both views are very important. One is primarily concerned at one extreme with what is necessary for overall analysis of budget programs for the most understandable presentation of the President's budget to Congress and for the top-level control of funds that are made available by Congress. The other extends to what is necessary to plan and control operations at an individual military establishment in the simplest and most effective way. It is a long way from one point of view to another—but the financial system must serve both. It must be adaptable and flexible enough to function effectively for the management of a post or station and at the same time produce the information and necessary control for management at the very top of the Government. The same problem exists for civilian agencies, although in somewhat lesser degree. It is a problem to be kept in mind as progress is made in improving the financial system.

It is obvious, I think, that we must look forward to the closest coordination, generally, between the Department of Defense and the rest of the Government on matters of financial management. Public Law 216 recognized that in order to do his job the Comptroller of the Department of Defense must establish uniform terminologies, classifications and procedures in all matters of financial management. The same principles must apply for the Government as a whole and this fact is recognized in the same law which provides that the powers, duties, and responsibilities of the Secretary of Defense under Title IV are to be administered in con-

formance with the policy and requirements for administration of budgetary and fiscal matters in the Government generally, including accounting and financial reporting. I realize that yours is a tremendously big department, and that on some things it may be a matter of necessity, due to your size, that progress be slower or that a temporary exception be made to some Government-wide requirement. I hope, however, that as we move forward even this will be less and less the case. I believe that we can find ways to take any special problem of the Department of Defense into account in working out new procedures or requirements and that you will find it possible to accommodate yourselves to these requirements like any other department of the Government. Let us work together to that end.

In looking ahead we certainly must take into account the achievements that have and will be made in automatic data processing. They will doubtless open up the possibility of procedural improvements which we cannot even yet imagine. Sometimes in the final pressure of putting a budget together, I hope they may reach the point where we may just grind a few figures and assumptions and value judgments into a tape and have a machine spill out a complete budget for the United States. I am not sure that I will live long enough to see that happen, but I am confident that we shall see in the next ten years revolutionary achievements in the high-speed handling of data, not only for accounting purposes but for other aspects of financial management. We should capitalize on these achievements to the fullest to help in improving and easing the burden of managing the Government's finances.

As we work toward future improvements in financial management we must keep uppermost in mind the needs of topside management. Accounts and budgets and audits and reports are not ends in themselves. They achieve their purpose only to the extent they are used by the appropriate authority to make informed decisions. They must be designed for this use and our systems must make them available at the right place and time to best serve the needs of the deciding authority. Let us avoid by every possible means any impression that financial management is a mystic cult with its own strange jargon and methods which the administrator does not understand. We must strive to make financial management a useful part of the fibre of good management generally. Success in doing this is the key to future achievements.

Whatever the future holds, I am sure the American Society of Military Comptrollers will be vigorous in 1969 as it is today, and its members will approach their problems with the same enthusiasm. My best wishes to you.



L.T. GEN. LAWTON ADDRESSES COMPTROLLERS

FORT MONROE, Virginia, January 21 — Lieutenant General William S. Lawton (right), Comptroller of the Army, chats with Colonel William C. Haneke before addressing area military comptrollers on January 19.

The scene took place at Fort Monroe Officers' Club, where the 118-member, tri-service Hampton Roads Chapter of the American Society of Military Comptrollers Heard General Lawton discuss interservice aspects of comptrollership and modernization of the Army comptroller program.

Colonel Haneke is president of the local chapter of the national organization and is comptroller at Continental Army Command headquarters.

General Lawton, former ASMC president, has been stationed at Fort Monroe twice during his 38-year military career.

General Lawton is retiring from the Army on 31 May 1960, and he and Mrs. Lawton plan to make their home in California after a period of travel in Europe.

* * * *

LETTER TO LT. GEN. WM. S. LAWTON

On behalf of the Council and Members of the American Society of Military Comptrollers, I would like to express appreciation to General Lawton for the contributions he has made to the Society during his two years as President and for his cooperation in speaking to the various chapters, both in this Country and in overseas areas he has visited. For his services with the Society, he has been awarded the Certificate of Outstanding Service to the Profession of Military Comptrollership.

We wish him bon voyage, happy landings, and many happy and rewarding years of Retirement.

Kenneth E. Dunlap

Kenneth E. Dunlap

LETTERS TO THE EDITOR

Dear Sir:

I am writing regarding the article, "Rubric Budget Cost Ratios - A New Navy Industrial Fund Concept," which appeared in the September 1959 issue of The Armed Forces Comptroller. In my opinion, the publishing, of such an article can only hurt the reputation and standing of the American Society of Military Comptrollers.

In the first place, the stated "one-ball-of-wax theory" of the "NIF experts" is an erroneous presumption which is an insult to the intelligence of those who have responsibility for the NIF program. No accounting system can, "ipso facto," guarantee management controls and good accounting techniques. The management controls and accounting techniques will, generally, be no better than the people operating the system.

The elements of the alleged "new concept" are "(1) expanded use of data processing capability, and (2) upon a budget cost structure of control." How the author can possibly see anything new in the above is, to quote a word used in the article, incomprehensible. The Navy has done everything possible at the departmental level to assist the NIF activities in data processing. In fact, a panel spent several months at the Naval Gun Factory and prepared a manual of proposed procedures which would mechanize practically all of the accounting operation. And to quote Mr. Richards in his article - "Furthermore the Naval Industrial Fund Handbook NAVEXOS P-1902 specifies an integrated and balanced system of data processing." The budget cost structure of control is one of the most important phases of the NIF operation as it now exists. Cost centers are established at NIF activities. Budgets are prepared by cost centers and costs are accumulated by cost centers in the same manner as budgeted. NAVEXOS P-1902 specifies that:

"In addition to the statements prescribed for submission to higher authority, statements may be prepared for local financial management for cost control, fund control, and analysis of operations. As a minimum the following types of statements should be prepared at least monthly:

1. Cost center statements comparing budgeted and actual costs by cost center, and,
2. Financial status reports comparing estimated and actual costs by customer order."

The main difference between statements actually used by most activities and the illustrative cases used by Mr. Richards is that the budget is used as the base for the computation of a percentage or ratio instead of the cost.

Several paragraphs are devoted to the development of the following:

"Thus any emphasis on improved financial control by a NIF activity over an activity managed by the conventional allotment system is incomprehensive if attributed to the transfer of benefits of an accounting system that was developed in the competitive market situation of private business. The financial controls imposed by Section 3679 do not carry through to NIF costs. These can and do mount up and up. Efficient operations are not achieved. Under NIF costs are billed to the customers who pay out tax money. There can be no profit differential. Hence it would seem that the related Profit and Loss Statement, or any similar version of it, is not significant control-wise. Other controls are necessary."

In one of these paragraphs Mr. Richards states:

"The fund turns over and over. We bill our costs. We get our costs back" The responsibility of control is pushed back to the managers of allotted monies who have no administrative responsibilities within the NIF organization." The author emphasizes that the NIF activities do not "bear the restrictions of Section 3679 of the Revised Statutes" and thus do not have a financial control based on "money-limit stoppers." I don't think it is necessary to get into a discussion at this point on the relative merits of fund control versus cost control but I do take exception to several of the statements made by the author. The orders received by NIF activities are the same type funding

documents used to fund non-NIF activities. It is true that there is no obligation of the order at a NIF activity until NIF costs have been incurred for the account of the order. However, if the "customers' allotment manager" can not or will not authorize an increase to the order for NIF costs incurred in excess of the amount of the order, the NIF activity must absorb the difference as a loss. If costs in excess of the amount of the order are billed against the order, the NIF activity is in violation of Section 3679 of the Revised Statutes. Thus the "financial controls imposed by Section 3679" do carry through to NIF activities and the responsibility of control is not pushed back to the managers of allotted monies who have no administrative responsibilities within the NIF organization. In addition to losses which may occur from NIF costs exceeding the order, as described above, NIF activities apply overhead on the basis of predetermined overhead rates. There is always an under or over application of overhead which results in a gain or loss to the activity. Many activities operate with fixed predetermined prices, rates, or tariffs. These can and do result in gains or losses to the fund. Thus it is not simply a matter of billing and recouping costs. There can be a profit differential from various sources and the Profit and Loss Statement can be significant from an overall standpoint. As stated previously one of the most important objectives of the NIF is to control costs. This is also an objective of accounting systems used by private business. I believe it would follow that since the NIF system and accounting systems used by private business are both striving towards the same objective and both are used with industrial type operations that the systems could and should be similar.

Now as to the conclusions drawn by Mr. Richards:

(1) "Budget/Cost" control is the cost control concept employed by the NIF. It is hoped that the "Price/Cost" concept can also be introduced through the extended use of predetermined prices and competitive bidding for jobs. However, the situation is complicated at the moment because of such problems as the necessity for maintaining reserve industrial capacity for use in case of war.

(2) The extended use of EAM and EDPS is encouraged and fostered by the Navy where economically feasible.

(3) Positive account reconciliation should be a part of local procedures employed in the operation of any accounting system. The instructions issued to NIF activities do not and should not provide the details of the maintenance of files. Activity Comptroller Departments are staffed to handle such areas. A general criticism of NIF on this point seems unjustified.

(4 and 5) The detailing of commitments to the customer by cost element and monthly billings of accrued costs are directly opposed to purposes and objectives of Industrial Funds as set forth in the Department of Defense Directive, Regulations Governing Industrial Fund Operations. This directive lists the following under specific objectives when industrial funds are used:

1. Provide meaningful bills to ordering agencies, clearly relating the goods and services furnished by a performing activity to the charges rendered, causing the ordering agencies to assess their procurement practices and specifications in full awareness of the costs involved;
2. Enable the ordering agencies to budget and account on and "end-product" basis (the same as when buying from commercial contractors), simplifying budget presentations, budgetary control, and accounting procedures for both producers and ordering agencies.

In conclusion, I'm certain that good, legitimate criticism of the NIF is welcome and can be helpful to the program. On the other hand, criticism, such as published in this article, which is based on erroneous presumptions, a lack of knowledge of the facts, coupled with a general dearth of understanding of the program can only create confusion, spread misconceptions, and generally retard a program which was prescribed by our Congress and which is actively supported by many who have proven themselves by long service in high positions in our Government.

/S/

Dan P. York

**Mr. Kenneth E. Dunlap, National Editor
Bureau of Aeronautics, Navy
Washington 25, D. C.**

Dear Mr. Dunlap:

I wish to commend you on an Article I saw in the September issue of THE ARMED FORCES COMPTROLLER. I refer to the Article beginning on page 33 on a new concept for Industrial Fund Accounting.

This new idea of Balanced Data is old in Accounting, but as Mr. Richards points out in this Article, it is new to the combination of Data Processing Equipment and Accounting. I have worked in this field for many years, and I have observed that as Electric Accounting Machines (card or electronic) are moved in, the problems of control increase. I believe the "Rubrics" or conglomerations of matched and balanced data (accomplished by the same machines) is an excellent idea.

Sincerely Yours,

/S/Charles F. Kemmell

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Contact

THE NATIONAL EDITOR

Mr. Kenneth E. Dunlap
516 North Oxford Street,
Arlington 3, Virginia.

Mr. Kenneth E. Dunlap, National Editor
Dear Sir:

This letter will serve as my rebuttal to Mr. Skilling's polemic and to his critique published in the December issue of THE ARMED FORCES COMPTROLLER. Mr. Skilling evidently has understood neither my article nor the economics of NIF. Thus I must clarify my views.

Dimnet, in his book "The Art of Thinking" emphasizes (page 140) that writers ought to realize that their thinking diagrams often appeal more directly to readers than many pages of their writing. In my rebuttal I shall follow this Dimnet dictum to achieve clarity in my exposition.

Nothing Is Free

This translation of the letters N-I-F emphasizes an important economic characteristic of the Naval Industrial Fund — its separateness as a business entity. It must buy. And it must sell to recoup its outlays. It is thus in the price economy like any other business.

The individual NIF Activity appropriates — it acquires economic resources, by an exchange of its cash for Labor and Other resources and by an exchange of its documents for Materials and Services. Through a planned production, end-values are extruded into the Navy Supply System, etc. These operations require dexterity under two discrete responsibilities. One of these is technical in nature — the other is economic. NIF'S engineers and production experts successfully provide the technical guidance for planned production. But it is in economic guidance where NIF founders.

My article stressed the economic side of NIF which, like the production side, comprises a series of technical operations. Both aspects involve measurement. Schematic C on page 36 of the September issue of The Armed Forces Comptroller shows the utility of the rubric idea in the economic area.

Good Administration

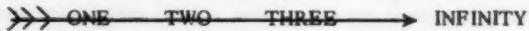
The word "rubric" comes from German accounting. Dr. Schmalenback in his book "Dynamische Bilanz" uses the word to designate a special Budget-Cost account wherein the accruing cost catches up with the estimate of the related budget item. This meaning is illustrated by Schematic C.

In addition the word "rubric" is used in my article as a data processing concept. Just before a processed list of data is released for account processing, the total of such list is matched BY THE MACHINE with the basic or original runs of the same data. This use of the word rubric is illustrated by Schematic B (ibid p. 35). The term refers to a kind of traffic control situation in data processing which can be represented by a STOP signal to indicate a check point where processed data must be balanced with the corresponding basic data before the next processing channel may be entered.

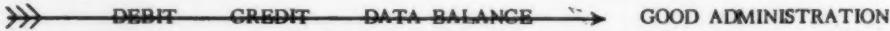
To use a rocket illustration, the control aspect of the "rubric" can be compared with the control aspect of the "account" as follows: The account records aspects of the flight like a news reporter's writeup, whereas the rubric sits in the nose cone and guides the rocket on its flight directly to its target area. Mr. Skilling's statement that NIF is one of the working tools of management is an obvious tautology.

Every management device is useful, if it is useful! But how can you measure usefulness. The answer: By the rubric position. To explain "rubric position" reference is made to the book "ONE TWO THREE . . . INFINITY" by Dr. George Gamov, Professor of Theoretical Physics at George Washington University.

Sketch I — for Dr. Gamov's speculations:



Sketch II - for Nothing Is Free:

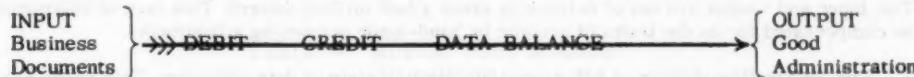


Good Administration is the goal. As long as men are something less than angels, Good Administration, like the mathematician's infinity, can be approached but never attained. No matter what somebody does now that gives better administration, somebody later on will improve the effort and will give still better administration. It may be your son or your son's son. Look at Mr. Henry Ford's great grandsons! Look at the Ford Company, now!

Data Balance

Basic data documents, comprising labor tickets, invoices, supply stubs, etc. are but pieces of paper. But they provide the vehicle on which the basic values of Labor, Material and Other Resources enter into the NIF stream. This is the picture:

Sketch III – for the Flow of Documents:



Good Administration is what you get out. It is no part of the Input of the business system. Mr. Skilling's platitude on page 43 is both wrong and dull. His truism, "What an Activity gets out of NIF is generally in direct ratio to what it puts into NIF," ignores the generative processing of documents from Input to Output. It ignores the growth potential involved. You do not get out what you put in unless, indeed, you put in a dead stone. You get out good administration or bad administration, good fruit or bad fruit, depending on the technical quality of the cultivation employed – or, upon the technical quality of the data processing evoked.

There follows a few hypothetically dollar figures for an imaginary NIF Data Processing System. A period of three months is covered.

TABLE I. THE BASIC DATA
(in millions)

Resources Purchased	Months			TOTAL
	ONE	TWO	THREE	
Labor.....	\$ 2.956	\$ 3.110	\$ 3.232	\$ 9.298
Material.....	.795	.630	.871	2.296
Other.....	.112	.158	.069	.339
Resources Available for Processing	\$ 3.863	\$ 3.898	\$ 4.172	\$11.933

Compare the above Table with Sketch III. A value of \$11.9 million has entered into the data processing system as a mere listing of Debits or of resources purchased. This is Step ONE of Sketch I, II, and III. The documents then pass into Step TWO. At Step TWO we have the Stop Signal of a Control Rubric. Our first question: Do the data at this point balance? Is the total on the Output Listing in agreement with the total on the Input Listing? We test these data mechanically as illustrated by Schematic B on page 35 of the September issue of The Armed Forces Comptroller. Here is the Output of processed data:

TABLE II. THE PROCESSED DATA
(in millions)

Resources Processed	Months			TOTAL
	ONE	TWO	THREE	
Factory Costs	\$ 2.880	\$ 2.907	\$ 3.107	\$ 8.894
Services Cost	1.055	1.034	1.093	3.182
Other Costs.....	.109	.116	.117	.342
Total Resources.....	\$ 4.044	\$ 4.057	\$ 4.317	\$12.418

Compare the Processed Data lists with the Basic Data lists. Are the totals in agreement? They are not!

TABLE III. DATA UNBALANCE
(in millions)

Description	Months			TOTAL
	ONE	TWO	THREE	
Basic Resources	\$ 3.863	\$ 3.898	\$ 4.172	\$11.933
Processed Resources	4.044	4.057	4.317	12.418
Resources Out of Balance	\$ (.181)	\$ (.159)	\$ (.145)	\$ (.485)

The Input and Output are out of balance by about a half million dollars. This lack of balance must be compensated for on the books of account by hand-made accounting adjustments.

One-half million dollars of NIF resources are in a state of data confusion. This is the amount of money listed on misplaced and mishandled documents. Find these important pieces of paper, if you can! In the electronic system this is well nigh impossible after the tapes have been erased. In the card system it is equally difficult after the cards have been disposed of. It is important, therefore, that the machinery of the system itself does this researching job immediately and automatically. This is the sense of the article and of Schematic B on Page 35 of the September Comptroller Journal.

The data processing machinery is programmed to throw out the amount of the difference and to give its composition. For example:

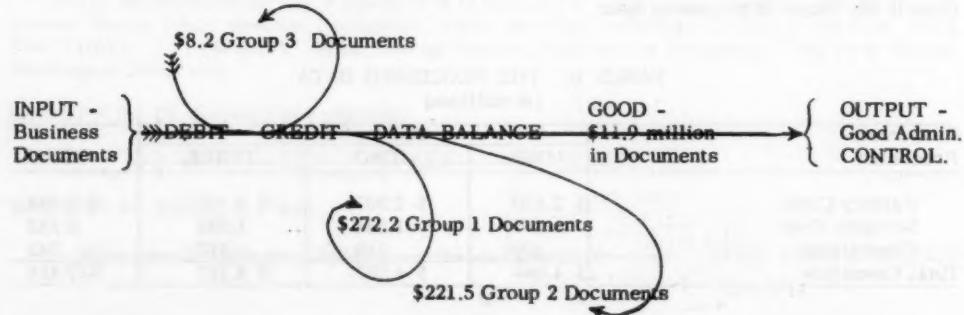
TABLE IV. DATA PROCESSING BREAKDOWNS
(in thousands)

Group 1 Errors, Resources mis-appropriated for this Rubric	\$ 272.2
Group 2 Errors, Resources listed as of this Rubric but which are in excess of actual INPUTS	221.5
Group 3 Errors, Resources inputted in a prior accounting period	(8.2)
Total Errors in this Rubric for this 3-month Period	\$ 485.5

You cannot slough off the matter by a remark, "Well, we got \$11.9 million right." In a balanced bookkeeping system any one amount that is outside of the system is *prima facie* evidence that the "right" part is not 100% right. Herein lies a great technical advantage of NIF. With good rubrical data processing, the NIF system will promote good administration.

The Fourth Sketch which follows shows the degenerative effect upon administration of data unbalance.

Sketch IV - for Data Unbalance (in thousands)



Our hypothetical accounting system is snafu. Corrections must begin as with Schematic B (ibid p. 35) and proceed under control past each RUBRIC STOP SIGNAL into the speedy traffic of modern life.

Accounting Balance

The Fourth Sketch shows that documents in the amount of \$8,200 have jumped a rubric cost dike and have polluted the waters of this rubric stream and thus induced bad rather than good administration. Likewise with \$272,200 in documents for charges to Non-NIF Funds. Also \$221,500 of costs, inflated by the inclusion of profit elements on intermediate production transfers, a feature of control accounting not tolerated by responsible professional accountants in private practice.

Without the "suggested augmentation of a detail to assemble and summarize data" (Mr. Skilling's language in the first paragraph of his critique) there occurs additional errors in the accounting operations. For example, TABLE V shows accounting balance errors, or inelegantly, accounting plugs.

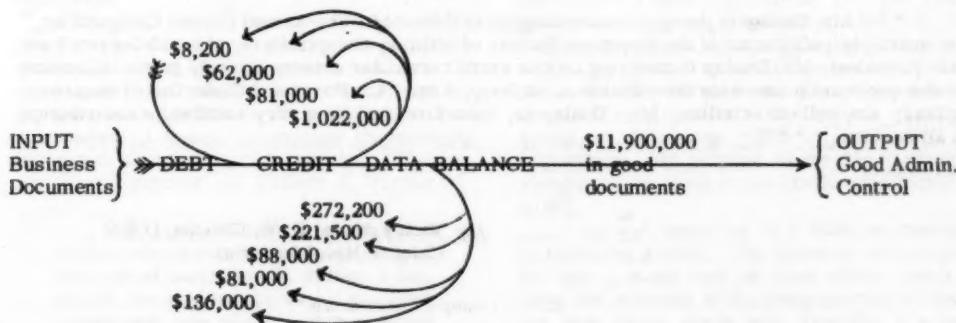
TABLE V. RUBRIC COST SUMMARY
(in millions)

Description	Basic Resources Purchased	Resources Processed	Differences in Resources
Basic Data	\$ 11.933	\$ -	\$ -
Processed Data	-	12.418	-
Debug Data to balance	-	(.485)	(.485)
Control Data Total	11.933	11.933	-
Bookkeeping errors			
Overhead errors062	.088	(.026)
Cost Adjustments	(.081)	(.081)	-
Resources lost	-	(.136)	.136
Idle Plant Subsidy	1.022	-	1.022
Total Errors	1.003	(.129)	1.132
Bookkeeping Balances			
Period costs.	\$ 12.936	-	-
Asset increment	-	\$ 11.804	-
Differences	-	-	\$ 1.132

Differences in Table V cover overhead distributed in excess of cost, reconciliation errors, and inventory write-offs which would not occur except in the umbrage of the NIF umbrella. Also, subsidy for idle plant which is handled as a resource appropriated when in fact the subsidy covers holes in the income sources. The following sketch combines the errors to show a confused NIF Control-Accounting picture. The one improvement most urgently needed here is expanded use of any existing data processing capability to obtain rubric data balances! Even of hand adding machine tapes of control figures!

Ab uno disce omnes!

Sketch V - for Confused NIF Control Accounting



Reference is pertinent here to the article "Do we need a Re-evaluation of the Industrial Fund?" in the June 1958 issue of THE ARMED FORCES COMPTROLLER. I quote the author as follows: ". . . we in comptrollership positions haven't done a particularly brilliant job of advising our agencies when and how - or whether - to use the Industrial Fund, that new criteria regarding its use ought to be developed, and that reasonable criteria should command a high degree of acceptance." By the use of the rubric system of progressive, across-the-board-test-data balances, a larger degree of sense and order and usefulness can be injected into the NIF system of double entry bookkeeping than would appear evident in the sketches and tables noted above. Why not infuse NIF data processing with the Rubric Spirit of Data Balance! The result could be accurate cost accounting and responsive budgeting. And, better Management!

Cost Control

Mr. Skilling asks, "Who is to set the figure of 100 for costwise satisfactory operations?" Answer: Nobody!

The figure of 100 is set implicitly. It is not a judgment figure. It is set by an implicit ratio computed automatically by dividing the budget estimate by the hard fact of the exact, associated cost. Budget-wise, the operation is preset - say within 15% of the actual cost. Then both figures, the preset and the actual, are compared by the locked machines working for rubric control! (See Schematic C, *ibid* p. 36 and 37). The allowable variance of 15%, or 10%, or 2% is the judgment figure - not "the figure of 100."

Who is to set the variance figures for Budget/Cost satisfactory operations? The answer: The Comptroller, the boss-man in the area of Financial Management. The advance setting of the permitted variance would be the Comptroller's central job! This would make him the most valued employee at the Activity since his primary job would be to exercise his influence at every significant segment of operation where labor and material and other resources are joined together to combine them into end products or services or components thereof. The Comptroller would be in there pitching with his percentages for each cost control juncture for the full nine innings of the ball game. By progressively narrowing these percentages, the set or fix of operations would advance toward the goal of Good Administration.

Quod erat demonstrandum!

Very truly yours,

/s/ Leo J. Richards, CPA
Cost Engineer
Brookmont, Md.
Washington 16, D. C.

* * * * *

LETTERS TO THE EDITOR

" * * * Mr. Dunlap is doing an outstanding job as Editor of "The Armed Forces Comptroller," the quarterly publication of the American Society of Military Comptrollers, of which Society I am past president. Mr. Dunlap is carrying on this extra curricular activity entirely gratis. Inasmuch as the publication has wide distribution to its Navy, Army, Air Force and Coast Guard members, military as well as civilian, Mr. Dunlap is, therefore, making a very worthwhile contribution to all services * * * "

/s/ Vice Admiral E. W. Clexton, U.S.N.
Chief of Naval Material

A-D-P-S A CHALLENGE AND OPPORTUNITY

The following are excerpts of remarks made by Major General Robert W. Ward, Director of Management Analysis, Office of the Comptroller of the Army, before the Chesapeake Chapter of the American Society of Military Comptrollers, 7 October, 1959.

"Ever so often, a new discussion area crops up which commands the attention of everyone in a particular field of endeavor, and it usually represents a significant step forward in methods or doctrine. A dynamic discussion area which introduces problems of most perplexing proportions is Automatic Data Processing Systems and what is management's part in the use of computers. This discussion will be limited to computers used in business-type areas. The subject of computers for scientific and engineering applications is an entirely different problem and in reality is foreign to the subject.

"For some time now, there has been a vigorous program under way in the Army to exploit electronic computers in business-type operations. At the present time, there are 31 computers installed in the Army. Their use extends primarily to national stock control points, technical service supply depots, military personnel accounting in The Adjutant General's Office, and to Soldiers' Deposits and Allotments in the Army Finance Center. The other military departments have placed similar emphasis on computer use. In terms of quantity, the Army and Navy have about the same number. The Air Force leads the field almost 2 to 1. In total, there are close to a hundred and twenty-five computers in the military departments. Actually, the numbers are not really significant. At least, I hope that progress in the computer field is not measured in terms of numbers.

"Increased numbers of organizations are finding diverse uses for computers. Consequently, an ever-increasing reservoir of experience is becoming available to those who wish to make use of it. The variety of functions and worldwide concepts of the military departments make it quite clear that more and more use will be made of this equipment. This is a foregone conclusion.

"The field of ADPS has grown by leaps and bounds over the past ten years. I wonder if we realize just how fast this growth has been. To point up this growth and importance of the use of electronic computers in both industry and government, I would like to quote the following paragraph from an article entitled 'The Astonishing Computer', by William B. Harris:

"The real fascination of the \$11.5 billion electronic industry, growing at the rate of more than \$1 million a day, is not its size but the way it produces completely new products that suddenly explode into major businesses. Such

an explosion is now occurring. Sales of the electronic computer, used by industry and government in data processing and for calculating problems in advanced engineering and science, have jumped from practically nothing in 1952 to close to \$350 million this year. Computer sales will probably hit a \$1 billion rate by 1960; \$2 billion by 1965."

"Now I must confess that I have not been able to find out who Mr. Harris is. For all I know, he might be a Comptroller. Then again, he might be a truck driver. But his identity is really not important. Whoever he is, Mr. Harris has succeeded in condensing into a few words the real impact of electronic computers on American industry and government.

"I have not lived with electronic computers in the sense that I understand their innermost secrets. I still like that old cliche' about ADPS - You remember it, I'm sure. 'An ADPS expert is a man who has not yet received delivery of his computer.' I want you to know that I still qualify as an expert.

"The magnitude of computer applications is difficult to grasp. A working knowledge of computers comes only from the closest of contact. As for myself, I started learning ADPS by diving from the high board, and I admit to taking a few belly flops. But standing on that high diving platform has given me a unique view of the people learning to swim in the pool. From my perspective, I can assure you that the swimmers are getting better all the time. My hope is that those of us on the high board are getting to be more graceful and that those in the pool are getting more proficient. Through my experiences, however casual they may have been, there are certain personal observations and convictions I have about ADPS. To cover every aspect would be too much for an article of this length. In addition, this article does not necessarily represent the official views of the Department of the Army, since everyone seems to have his own opinion on the subject. I do not intend to dramatize ADPS or to impute its importance. My purpose is merely to express viewpoints on some of the challenging facets of ADPS.

"We are operating in a fluid environment of exploding growth. The future is with us now. By this I mean that we must either admit or deny the veracity of the prognostications made but five short years ago. Actually, it's been extremely difficult to keep pace with the ad-

vancing state of the computer art. It has likewise been difficult to evaluate the events which have taken place from day to day and to measure them in terms of their true meaning. Take, for example, the introduction of transistorized computers and components. This was truly a great technical advance. We all recognize this, but who today can measure its total effect? It is my personal feeling that from here on out these so-called radical changes — and you can be sure there will be more — will be introduced, not as revolutionary changes, but evolutionary offerings of newer models, or as replacement features. In any event, I believe obsolescence, which may continue as a dominant theme, is not a major consideration.

"Each advent of these newer models and significant advantages requires that we broaden our horizon of knowledge. Just a few years ago we had only to set our sights on the capabilities of a few machines. As the componentry and complexity increases, so must our thinking be broadened to consider these advantages. To select the computer best fitted for the job at hand is becoming more difficult than ever. Inherent in this situation, of course, is the never ending problem of education.

"We have always had a pet phrase in my office for this educational problem. 'There is a danger that top planning may outrun the ability of the Army to assimilate this new technology.' At times, this philosophy of admonition has been interpreted as a negative policy. It has been my observation, however, that this is probably the most positive and timely statement constructed to express the true ADPS situation over the past five years.

"A failure to recognize the true magnitude and complexities of ADPS at the planning stage can lead to ulcers. Only by recognizing this factor can realistic schedules be established and maintained and good results forthcoming.

"Data processing systems cannot be developed in a vacuum. A computer system must be developed and applied with full consideration of the total systems complex it will serve. Their capabilities and limitations must be considered in terms of a total system rather than in the vacuum of a technique in and by itself. To put this thought differently — the computer must serve the system rather than control the system.

"In designing and applying these systems, we would be in the soup completely if we misinterpreted the widely advertised slogan of manufacturers that these computers are extremely flexible. You may recall this particular selling point. We cannot wantonly disregard reality. We must face up to the fact very quickly that flexibility in a computer is an illusive quality.

"The dictionary defines flexibility as something which is not rigid and which is readily adjusted. Well, now, you know as well as I that

once determined, a computer system cannot be frequently changed without many manhours of reprogramming effort. This requires infinite care and detail and above all, precious time. Once a computer program is determined, the system is relatively flexible. I can only conclude that flexibility of a computer is best described as a capability to achieve rigidity in many ways.

"Where instability in operating procedures exists, the question of flexibility is compounded, and we then are faced with a decision as to whether ADPS should be applied at all. To continually adjust procedures brings a veritable cascade of changes down upon the heads of the programming staff. It soon inundates the entire operation. Instability of procedures is a danger signal about which to think twice before applying a computer to any operation.

"Another area in which I have a personal observation to make is in connection with hidden costs. As you may realize, some of the locations at which computers have been installed are truly showcases, and it costs good money to make them so. On the other hand, the need for air conditioning, preventive measures against dust, and subduing the noise — all of these things, and many more, require special preparations. But why put in only 20 tons of air conditioning — why not put in 30 tons and pipe the excess into other areas of the building? This is the type of thing that adds extra cost to your facility. Let me give you another example of a hidden cost. Perhaps it is better to describe this one as an oversight. Without naming names, one installation received approval and installed its equipment thinking that the initial cost of magnetic tapes was included in the cost of the tape units. The cost of this oversight was a mere \$25,000!

"Hidden costs are rather prevalent and could have a profound effect on an agency's budget and, in fact, on the economic justification of the equipment itself. Obviously, we must all guard against their occurrence. This brings to mind another observation which has to do with the general theme of cost projections. In looking over past experience, it seems to me that the requirements for hours of computer use, numbers of auxiliary equipment, supplies, etc., have been consistently under-estimated and in some cases by up to 100%. I attribute this situation to a lack of full understanding and a lack of education on just what the impact of installing a computer really is. When you come right down to it, most of our problems in ADPS can be laid at the doorstep of inexperience.

"It would be repetitious to expound on the impact that computers can have on an organization. We have advanced to the point where people no longer gape with awe when you announce your intentions to get a computer. Instead, you get a steady flow of understanding sympathy and advice. This reaction is borne out

by the blood, sweat and tears of hard efforts. We can't afford to close our eyes to the mistakes which have occurred. We can benefit from them. And there are many successful and outstanding examples of computer applications. We can benefit from these too.

"There is one particular aspect of ADPS that has caused no end of discussion. It is such a basic thing, and yet it has been quite a source of concern. I am referring to the matter of purity of records prior to conversion to a computer system. Time and again we have heard people say that a computer will perform just as fast with the wrong information as it will with the right information. Computers just don't correct errors — they multiply them a thousand times faster than by other means. And yet there have been cases where a deliberate decision was made to install a computer knowing full well that the basic data were not reliable. The decisions were well intended and were made in the interest of advancing the date of computer delivery. The penalty for overlooking the necessity for purifying basic records, however, is months and even years of anxiety about the reliability of the decision reached. Whatever else in the way of mistakes are made, it is my conviction that this oversight is the principal one to avoid.

"While we are on the subject of mistakes, I want to make it clear that the Army has no corner on the market. The Army need apologize to no one.

"There is another area about which I would like to comment. It has to do with punched cards. The relationship between punched card processes and ADPS is very close. As a matter of fact, 30 of the 31 existing computer systems in the Army's business procedures use EAM as an integral part of the total system. All major management systems of the Army use EAM and it is contemplated that ADPS will extend eventually to these systems. It seems to me, then, that it behooves all of us to think in terms of not just a computer but a computer plus. As I mentioned earlier, computer systems cannot be developed in a vacuum. Computers cannot do everything, although some people would like to think they can. My point in mentioning punched cards is that I believe punched cards will continue to be a potent force as a processing tool, *per se*, as well as an important auxiliary to ADPS.

"Now I want to comment for a moment on a situation which I feel is most important. This situation relates to the benefits we are deriving from computers. Only a very few computer installations have realized the monetary savings or personnel reductions originally projected. It is easy to conclude that the estimates were inadequate to begin with. But then we have to understand that a lot happens to any organization

over a period of a year and a half. Changed and even new missions enter the picture. Pretty soon we realize that by the time a computer operation beds down, a year or more has gone by and a common, concise denominator for comparing before and after costs does not exist. Whatever personnel were saved may have been used elsewhere to bring down backlogs or to perform new functions. The exact numbers and new locations of these people may become obscure or even lost. The conditions may become so complicated that we find considerable cost shifting but the budget of the installation has remained virtually unchanged. In this atmosphere we look for evidence of better management, more useful data, faster responses, and so forth. Oddly enough, the intangibles are becoming more specific than the tangible. This development has led only to confusion in the manager's mind. It seems to me that this garbled condition must be clarified if we hope to evaluate the contribution of computers. Evaluations are difficult to say the least. The need for objectivity is basic. But in applying this impartial view there is the element of diversified approaches with which we must contend. To make clear what I mean, listen to this analogy. Send two people on a sightseeing trip and ask each of them to visit the same places and write a report on what they saw. It's a foregone conclusion that, except for the dates of the visits and perhaps the identity of the locations, the two reports would be worlds apart. The reason for this, of course, is the judgment factor and individual interests. I doubt whether computer evaluations can become so stereotyped as to preclude the exercise of judgment and interest. I don't know what the final answer is to a true evaluation of computer use. But without fear of contradiction, I can say that until such time as at least a partial answer is forthcoming, clear cut evaluations will elude us.

"I'm quite sure that some of the problems I have spoken about this evening, you might have also heard in connection with other mechanized systems in the past. This is not too unusual. But let us not make the mistake of thinking that because these ADPS problems appear to be the same as we have had before, we can turn our backs to them and they will solve themselves. The factors which make ADPS so different from past equipment introduced on the market are their complexity as a piece of equipment and the increasing complexity of the processes within which the equipment is applied. We have got to preserve our perspective. When all the furor about computers dies down and they become a so-called conventional tool, we might then have some new marvel of science to concern ourselves with and whose problems appear to again defy solution. Who knows but what the near future might bring a 'computersput'

that will outmode punched cards, paper tape, and magnetic tapes by accepting the spoken word as input. Of course, because of the form of the English language and the variety of spelling and word meaning, some problems may be encountered. It is obvious that the 'computersput' will need to recognize the southern drawl and the Brooklyn brogue. But these are small problems.

"This is not as fantastic as it sounds. They've tried it with typewriters. The results, for the individuals involved, were disastrous. But just because they retired to a mental institution doesn't mean we shouldn't keep on trying. Here's your chance to make a name for yourself - those of you with strong constitutions.

"Before closing, I want to offer some final words about the subject in general. There is a tendency on the part of the uniformed to use computers as a topical whipping boy. There is also the tendency to agree with some critics that the present users of computers have been too eager to seize upon ADPS as a solution to their ills. This has been an area charged with optimism. However, I doubt whether our general position has been worsened. At the minimum, ADPS is highlighting ills which have been with us for some time. This can be the proverbial blessing in disguise. At this stage in the game we are still in a position to go back to the horse

and buggy if this horseless carriage is not here to stay.

"It is pretty easy, isn't it, to play the role of a Sunday quarterback after the football game has been played? But as far as I'm concerned, the only man who does not make a mistake in any field of endeavor is the man who doesn't do anything. Thus, I do not believe that the pioneers of ADPS should be criticized in retrospect without due deference being given to the good points as well as the bad. To do otherwise can lead only to establishing a feeling of lethargy on the part of normally aggressive people and organizations.

"This is the worst thing that can happen. The Army must continue to be alive and aggressive. It must explore every avenue to make use of new tools and to improve its operations. As we explore, the rough edges we find along the way can be filed down to sharpen our effort.

"ADPS presents us all with both an opportunity and a challenge. An opportunity to contribute something real and substantial to increased effectiveness and efficiency in the way we perform. A challenge to us all to understand its use, its potential, its impact and its real worth. If we take the opportunity and accept the challenge, I have no qualms about the future of computers."

KNOW YOUR OFFICERS—

IRMA M. ROUSE, USA-NATIONAL TREASURER, ASMC

Irma M. Rouse commenced Federal Government service in 1940 with Office, Chief of Finance, U. S. Army, following employment with the Wyoming State Government. Transferred to Office, Comptroller of the Army, Office, Director of Accounting, in 1955. Graduate of Benjamin Franklin University, Washington, D. C.

PURPOSE AND USE OF EXPENDITURE ACCOUNTS

Mr. Curtis R. Hinkley, Program Evaluation Officer, Shore Establishment Division, Bureau of Naval Personnel

Forward: The observations, comments, problems (and solutions offered - if any) contained in this article reflect the personal opinion of the writer and are not to be construed as official Bureau or Department policy, thinking, or even attitude. Many of the ideas expressed are contentions, and while some of the comment may imply criticism, it is not directed at any person, Bureau, or Department - rather, blame it on the "system". The reader should bear in mind that, like the three blind men describing the elephant, the purpose and use of expenditure accounts depends upon the viewpoint and level of management concerned. The author has had twenty years experience with Navy expenditure accounts in various phases. The last ten years have been primarily concerned with Public Works Maintenance and Operation (Navy nomenclature), the maintenance and operation of station facilities, i.e., maintenance of real property (buildings, grounds, utilities, etc.,) and maintenance of equipment. While the article is based on Navy experience, since these are so-called "common services" items, we feel sure that personnel of the other Services have been faced with parallel conditions.

In private industry where profit is the motivating force, cost accounting and analysis have long been recognized as factors which often determine the difference between profit and loss, success or failure. All too often, however, in the Defense Establishment, expenditure accounts have been looked upon more as a necessary evil rather than as a management tool. While the accounts have been available, very little if any attention has been paid to them. The emphasis has been, and still is to a large extent, on fiscal or appropriation accounting. Cost accounting has only been given lip service, and that grudgingly.

Lacking a profit incentive, there has not been any comparative compelling urge to determine accurate costs until fairly recent years. However, a multiplicity of new demands (rising costs, research and development of new devices, etc.) have increased the drain on available funds. With additional funds to meet this demand either non-existent or extremely limited, funds for old established programs (particularly maintenance and operation of station facilities) have been curtailed. Likewise faced with new demands, as well as increased costs of labor and material, and aging facilities to maintain and operate, this segment of the Defense Establishment has been forced into a closer scrutiny of costs. Let us say that the purpose of this scrutiny is to accomplish more jobs for the same money; to get "More bang for a buck;" or, to use another phrase, call it "Operation Dollar-Stretch."

With that introductory comment out of the way, let's proceed to explore the purpose (as interpreted by the writer) of expenditure accounts as applied to maintenance and operation of station facilities. Since opinion varies with the individual, quite possibly the least controversial statement in this article will be to the effect that expenditure accounts provide a media for the segregation and accumulation of costs to meaningful summaries that will permit

analysis by various levels of management. The degree of detail required depends upon the level of management doing the analysis. At the station level, it is often desirable to have costs detailed in a degree that would be impractical and useless at the Departmental level. The accounting structure, reporting, and analysis of costs below the expenditure account level is too involved to include in this article. The ideal system is to have the accounts so coded that they permit summarization for analysis by the various reviewing echelons. Currently, in the Navy, this is accomplished by means of a five digit number: the first two digits indicate broad general areas such as "capitalized" type additions to plane account (41), administrative services (43), plant maintenance, upkeep and repairs (44), and, operating and service costs (45). The third digit breaks costs down into broad general groups, such as equipment, utilities, buildings, etc., and the last two digits designate the detail, such as type of equipment, utility, building, service, etc.

One of the prime requisites of Bureau management should be the equitable distribution of available funds commensurate with assigned programs and responsibilities. Various media have been devised from time to time to promote this concept - special reports of one kind or another, Work Measurement, and special expenditure accounts. Since this article is devoted to expenditure accounts, comment will be confined to that area. At the Bureau level, expenditure accounts have at least three main purposes: (1) More accurate estimates for financial planning; (2) Comparison of activity costs; and (3), Comparison of unit costs.

Financial planning involves "savings" on the curtailment, transfer, or disestablishment of programs, activities, or stations. It also involves increased costs entailed by new or expanding programs and facilities. A backlog of statistical data compiled from expenditure account costs permits more accurate estimates.

In any process of distributing available

funds, a comparison of activity costs is inevitable, at least on a "total cost" basis. Quite possibly this is as far as Bureau analysis goes, either due to lack of interest on the part of management officials, or lack of personnel and time to delve deeper. However, of two or more stations of approximately the same size, physical attributes, missions, and other workload factors affecting financial requirements, any comparison on other than a superficial basis cannot fail to raise "why" questions. Why should Station A's heating costs be 40% greater than Station B's? Why should B's building maintenance costs be 20% greater than A's? How did Station C manage to maintain their grounds at 35% less than the others? And so on, ad infinitum. The quest for answers to these "why" questions leads naturally to the third use of expenditure accounts, comparison of unit costs.

The problems encountered in any comparison of unit costs are so numerous, and some of them so complex, that a book could be written about them. The author can only hope to comment briefly on a few of them. At this point, it appears to the author that the greatest problem facing management, at all levels, is, for lack of a better term, "purification of accounting data". "Accounting data" is used in its broadest sense, involving not only dollar costs, but work units as well. The solution of this problem, or possibly the cause of the problem in the first place, is much more involved and far-reaching than appears on the surface, with many contributing factors. For purposes of this article, I would define these factors as: (1) Attitude of higher echelons of management; (2) Expenditure account descriptions; (3) Verification of uniformity in reporting costs and work units; and (4) Evaluation of station differences. These factors are all so inextricably interwoven as to defy separation or charting.

If the whole problem could be likened to a pyramid, with our "more bang for a buck" as the top stone, I would make number one above the foundation. The interest, or concern, in expenditure accounts is in direct ratio to, and dependent on, the next higher echelon of authority. It is a vicious circle. Why should the accounting clerk be concerned when he never is questioned about charging certain items to a particular expenditure account. Why should the Commanding Officer be concerned when he never receives an inquiry from the Bureau, or comparison of costs with other activities. Why should the Bureau be concerned when it never receives any inquiry or comparisons with other Bureaus in the Department. Oddly enough, those in a position to do the most about it, to obtain the most benefit from it, quite often do not realize that the problem even exists. A "failure to see the trees for the forest" failure to realize that it is the trees that make the forest. The greatest impetus the cost accounting

phase has had is the Report DD-P&I(OT)5830 on Real Property Maintenance Costs. While far from perfect, at least this report indicates an interest at higher management levels, which has chain-reacted downward. At that level, management must deal with broad, general, Departmental summaries, relying on faith in the accuracy thereof. However, the Program (if it can be called that) has one weakness - lack of follow-up. True, the Program is just getting started and probably is beset with numerous complex problems, but how can interest and accuracy be fostered without lines of communication downward.

At the next level (Departmental) I would make expenditure account descriptions, the basic factor affecting our structure. Regardless of the functional detail level, the description of charges applicable to the account should be spelled out in precise, clear-cut language. Vague or ambiguous descriptions leave an open field for individual field interpretations as to the account to be charged. It should be borne in mind that accounting data (object class, expenditure account, job order, allotment, appropriation, etc.) assigned to basic work requests or purchase orders are often assigned by "green" personnel unfamiliar with the system. For any effective comparison of costs between activities, identical costs must be charged to identical accounts - uniformity is mandatory. This uniformity can, and must be, fostered by explicit account descriptions.

I would make factor three (verification of uniformity in reporting costs and work units) the basic factor at a Bureau level, although for implementation it might well be on a Departmental level. It would seem to the writer that an ideal organizational structure already exists in the Navy for the implementation of factor three, namely, The District Public Works Offices under Yards and Docks. Personnel physically located in these offices would be "Departmental Ambassadors" visiting all Navy establishments in the District regardless of Bureau management responsibility. It would be their responsibility to conduct a continuous analysis of expenditure account charges and reporting of work units to assure uniformity. To forego intra-bureau rivalries, such personnel should be under the technical direction of the Comptroller of the Navy. While this verification could be done by individual bureaus, it seems to the writer that the setup outline above would be more economical and practical. Investigations into the cause of extreme variances in unit costs have often disclosed erroneous charges, i.e., wrong expenditure account charged. Two activities, "A" and "B", can search their respective data without finding anything out of line; yet in heating, for instance, "A" might be charging ash disposal to 45725 (Trash Removal) and "B" charging it to 45422 (Steam

Source. District level "Ambassadors" would eliminate differences of this nature, as well as the inclination to take advantage of every loophole in reporting costs and work units to make an activity look better in specific areas. If activities could be assured that every other activity was reporting and being evaluated, on exactly the same basis, comparison would not be resented to the extent that it now is. Another angle affecting this concept is commented on under factor four.

Evaluating station differences is the "fly in the ointment" of all media so far devised to enable management to evaluate the requirements of a group of activities and to equitably distribute available funds. This one factor has been and still is, the "Jonah" of the Public Works Work Measurement program, and of the current expenditure account (Navy) structure. In comparing performance (either unit cost or labor - Work Measurement) the commonest complaint from field personnel is "but our activity is different". It is all well and good to generalize - to say "these things average out," however, that does not satisfy the individual activity. Combating this argument, and attempting to justify the media which gives rise to it, has been a most frustrating experience. Field activities resent their requirements being evaluated or compared on the basis of "average" norms, which, in themselves, are based on such broad levels as to eliminate all individual characteristics. True enough, the costs resulting from these characteristics can be developed to almost any degree at the station level by means of job orders below the expenditure account level. Realistic estimates can and are being made from such data by field activities BUT THAT IS NOT THE MANAGEMENT LEVEL ALLOCATING THE OVER-ALL FUNDS. Individual activities cannot evaluate over-all funding requirements. That is the Bureau's responsibility. To discharge that responsibility more effectively and at the same time ameliorate field objections to evaluations based on broad, over-all criteria, is the core of the problem.

As a case in point, take buildings, maintenance of which, as a category, took the most money (21.9%) in the 1958 Navy funding of Real Property Maintenance & Operation. At one time the writer was convinced that the solution, at least partially, lay in the distinction between "permanent," semi-permanent," and "temporary" construction of buildings. Effective with F.Y. 1957 a revision of the expenditure accounts into these categories. An analysis of these costs, however, does not substantiate the theory previously held that type of construction materially affects the cost of maintenance. This was quite puzzling and rather disconcerting, until exploratory thinking on the problem came up with what, to the writer, is the obvious answer. The answer appears to be that the

majority of maintenance job orders (estimated by the writer at from 80 to 90%) on a building are not against the building as a "structure" but against the utility lines or equipment installed in the building. For capitalization purposes, the initial cost of installation is charged to the building as Class 2 property, and the maintenance costs have automatically followed suit. Under current, and long-standing procedures, when a piece of equipment is installed (bolted, or otherwise firmly attached) in a building, it becomes a part of the building and any maintenance is charged to the building account. Likewise, for utility distribution lines. When the line enters the building, for accounting purposes, it becomes a part of the building. Since the functional use of a building determines the type and quantity of equipment and utility lines, it follows that a more detailed functional breakdown of costs will furnish a more reliable "benchmark" for evaluating requirements.

In the Navy, there are currently 51 building accounts, segregating costs by type of construction mentioned above, for 17 functions. There is currently under consideration a proposed revision which would expand this into approximately 462 building accounts by 232 functional types, following the DOD Basic Category Code. This would be a big step forward and go far toward solving the problem. However, one objection might be the added mass of detailed accounting involved, and the problems of summarization (for Bureau use) of costs under the accounts as proposed. At this point the writer would like to expound an idea which may be opposed, but which he believes would afford an answer to the problem.

It is suggested that accounting would be simplified, and costs more clear-cut, if the costing for maintenance of utility distribution lines was NOT stopped at the building line, but continued right on. The charges for labor would be simplified; a plumber would be working on the water distribution system, an electrician on the electrical distribution system, etc. Their time would not be charged to one account up to a certain point, then subject to being charged to one or more of 51 (currently) different building accounts. The same thing applies to all the other crafts that work on utility line. The same principal applies to equipment, and, theoretically, would eliminate confusion and individual interpretations as to whether a certain piece of equipment was Class 2 or Class 3. Heating is heating, whether it is done by a piece of Class 3 equipment or a central heating plant; likewise with air conditioning. Maintenance of equipment is an integral factor in determining utility costs, yet there are three separate types of equipment, with conflicting interpretation as to how maintenance costs are to be charged: (1) central heating plant, (2) individual heating plant (many of which are as large or larger

than central heating plants), and (3) space or unit heaters (Class 3 equipment).

Webster's Dictionary defines a building as follows: "A structure which is built, especially for permanent use...." The concept outlined above would limit building maintenance costs to structural maintenance. Maintenance of the utility lines or systems in the building would be charged to the distribution system, and equipment, either Class 2 or 3, to function served. For acquisition, go ahead and charge to Class 2 or 3, but for maintenance, confine building costs to structural maintenance. If the writer's

assumption is valid that 80/90% of all building job orders are for work on the utility lines or equipment, the above procedure would greatly reduce the number of individual accounting entries required.

Now the writer is not naive enough to believe that the above idea is any panacea. There would still be many problems to solve, ground rules to establish, and varied interpretations to resolve. However the savings - to be realized in accounting costs-alone merit the serious consideration of the "powers that be" in the suggestion.



DEPUTY FISCAL DIRECTOR WINS PROMOTION TO GS 16

WASHINGTON, D. C., January 8 — Mr. James F. Wright, Deputy Fiscal Director of the Marine Corps, became the Corps' first "supergrade" civilian employee today when he was promoted to GS-16 in ceremonies held in the office of the Commandant, General David M. Shoup.

Mr. Wright has served as Deputy Fiscal Director since the Fiscal Division was established in 1953. Before that, he was successively employed by the U. S. Forest Service and the Navy.

As a Budget Analyst in the Navy Comptroller's office from 1948 to 1953, he moved up through the grades from GS-5 to GS-14 — progress rarely if ever before duplicated in a five-year period. Since he began work at Headquarters Marine Corps, Mr. Wright has been cited several times for outstanding performance. His awards include a Letter of Commendation from the Fiscal Director, a Meritorious Civilian Service Award, Outstanding Performance Ratings for the years 1956 through 1959, and Sustained Superior Performance Awards for the same years.

An Army Veteran of World War II, Mr. Wright was born and educated in South Dakota. He is now serving as Vice President of the American Society of Military Comptrollers.

Congratulations, Jim —
The Editor

DEFENSE CONTRACT COST PRINCIPLES
(Section XV of the Armed Services Procurement Regulations)

Reprinted from "Missile and Space Contracts Report dated 8 December 1959."^{*}

The Pentagon recently issued in final form the long-awaited revision of defense contract cost principles (Section XV of the Armed Services Procurement Regulation.*

Although any judgment as to the precise effects of the new Section XV of ASPR will have to await actual operating experience, certain general observations with respect to this major policy and procedural change in government contracting can be made at this time. These include:

1. The applicability of contract cost principles is broadened beyond the cost reimbursement area to include negotiated fixed price contracts.
2. Two important changes are made in cost allowability. For the first time the allocable portion of independent research and development expense is made allowable as a contract cost. Conversely, interest on borrowings is no longer allowed as a cost in connection with contract termination.
3. The new regulations include coverage of additional items of cost and amplify their treatment of expense items previously included.

The new cost principles are applicable to cost reimbursement contracts — both supply and research and development — and, where appropriate, in the negotiation of both fixed price contracts and termination settlements. Use of these regulations is permissive at the present time but mandatory for contracts issued after July 1, 1960. In addition, amendment of existing contracts to incorporate the new cost principles is not required.

This memorandum discusses in detail the applicability of these new cost principles to specific defense contract situations, followed by an examination of the new definitions of "reasonableness" and "allowability" as those terms pertain to allowability of contract costs. Finally, there is an enumeration of the 44 selected individual costs which are specifically covered by the new regulations.

Applicability of the New Contract Cost Principles
COST REIMBURSEMENT CONTRACTS —
The new comprehensive cost principles are to

be directly applicable to cost reimbursement contracts for supplies and for research and development work with commercial institutions, including cost reimbursement subcontracts thereunder. In such contracts, the cost principles shall be incorporated by reference as the basis for determining the reimbursement of costs incurred in the performance of the contract. Separate cost principles were published at an earlier date for cost reimbursement contracts with educational institutions and for cost reimbursement construction contracts.

FIXED PRICE CONTRACTS — The cost principles are also to be used "in the evaluation of costs in pricing of negotiated fixed-price type contracts and subcontracts where such evaluation is required to establish prices for such contracts" and in the negotiation of termination settlements. (Emphasis supplied.)

In a press release accompanying the issuance of the new regulations, the Defense Department has stated that the cost principles have no application to the award of contracts by formal advertising nor to the award of contracts by negotiation "where adequate competition is available to insure fair and reasonable prices." In the determination of a negotiated price and in the fixing of profits or fees in connection therewith, the policies of ASPR Section III, Part 8, entitled "Price Negotiation Policies and Techniques," are governing.

According to the new regulations, the need for consideration of costs (and, consequently, the applicability of the cost principles) varies considerably.

Retrospective pricing — In the negotiation of firm fixed prices after completion of the contract work, the treatment of costs is "a major factor" in arriving at the amount of the price or settlement.

Forward pricing — In connection with contract work to be performed in the future, actual costs cannot be known as they have yet to be incurred. Thus, the question at issue in such cases is the establishment of a total contract price rather than the mere reimbursement of allowable costs. Moreover, under the regulations, the contracting officer is to be free to bargain for a total price which equitably distributes the risks between the contractor and the government and provides incentives for efficiency and cost reduction.

Cost principles as a guideline — When costs

* This Report was prepared by the Machinery & Allied Products Institute (MAPI), 1200 - 18th Street, N. W., Washington 6, D. C. Complete text of these new regulations is contained in MAPI Bulletin 3621.

are to be considered in the negotiation of fixed price contracts, the regulations direct that "Section XV shall be used as a guide in the evaluation of cost data required to establish a fair and reasonable price in conjunction with other pertinent considerations [as set forth in ASPR Section III, Part 87]." Although contracting officers are expected to use their judgment as to the degree of detail in which they consider the individual elements of cost in arriving at their evaluation of total cost, "the negotiation record should fully substantiate and justify the reasoning leading to any negotiated price." It should be noted at this point that ASPR Section III now requires contracting officers to obtain current, complete, and correct data in contract negotiation where effective price competition is absent.

What effect the cost principles will ultimately have on price negotiation, in the light of these ASPR instructions, is difficult to predict. However, it seems clear that in all negotiated fixed price contracts, with the possible exception of firm fixed price contracts, estimated costs will have a bearing on prices. Contracting officers, of course, will insist that cost estimates be prepared in accordance with the new principles. It seems likely, based on past experience, that such "allowable" cost estimates plus a "reasonable" profit determined thereon will serve, at least, as a top limit on any negotiated price.

General Principles For Use in Determining Costs Under Cost Reimbursement Type Contracts for Supplies and For Research and Development Work with Commercial Organizations.

In ascertaining what constitutes costs, any generally accepted method of determining or estimating costs that is equitable under the circumstances may be used. Once it has been decided that a cost has been incurred, the following factors may be considered in determining whether such a cost is allowable: (1) Reasonableness; (2) Allocability; (3) Application of those generally accepted accounting principles and practices appropriate to the particular circumstances; and (4) Any limitation included either in the regulations or in the contract itself.

REASONABleness: A cost is reasonable if it does not exceed that which would be incurred by an "ordinarily prudent person in the conduct of competitive business." There should be scrutiny of costs with particular care in connection with firms or special divisions thereof which may not be subject to effective competitive restraints. In addition, the following factors should be considered on the question of reasonableness:

(1) Whether the cost is generally recognized as ordinary and necessary for the conduct of

the contractor's business; (2) restraints or requirements imposed by sound business practices, arm's length bargaining, and federal and state law and regulations; (3) action that a prudent businessman would take under the circumstances, considering his responsibilities to — (a) the owners of the business, (b) his employees, (c) his customers, (d) the government, and (e) the public at large; and (4) significant deviations from established practices of the contractor.

ALLOCABILITY: Generally speaking, a cost is allocable to a government contract if: (1) it is incurred specifically for the contract; (2) it benefits both the contract and other work; or (3) it is necessary to the over-all operation of the business.

INDIRECT COSTS — Indirect costs will be accumulated by logical cost groupings with due consideration of the reasons for incurring the costs. Commonly, manufacturing overhead, selling expenses, and general and administrative expenses are separately grouped. The contractor's established practices with respect to the allocation of indirect costs, if in accord with generally accepted accounting principles, will generally be acceptable providing there are no substantial differences in cost patterns between government and commercial work.

Subcontracts — Costs incurred as reimbursements to a subcontractor under a cost reimbursement type subcontract of any tier above the first fixed price subcontract are allowable to the extent that such allowance is consistent with these cost principles.

Selected Cost Items

Section XV of ASPR includes specific discussion of the allowability of the costs listed below. The regulations emphasize that failure to treat a cost item should not be construed to imply that it is either allowable or unallowable.

1. **ADVERTISING COSTS** — Advertising costs are generally unallowable. An exception to the general rule is provided for help-wanted advertising, advertising in trade and technical journals and costs of participation in certain exhibits (provided in both cases that specific services or products are not offered for sale), and advertising for the exclusive purpose of obtaining scarce materials, plant equipment, etc.

2. **BAD DEBTS** — Bad debts are unallowable.

3. **BIDDING COSTS** — The costs of preparing bids or proposals, whether successful or unsuccessful, on potential government and non-government contracts or projects are allowable as indirect costs. However, no bidding costs of past accounting periods are allowable in the current period to a government contract.

4. **BONDING COSTS** — The costs of bonding required either pursuant to the contract or in the general conduct of the contractor's business are allowable.

5. CIVIL DEFENSE COSTS - Civil defense costs incurred pursuant to proposals or requirements of civil defense authorities are allowable.

6. COMPENSATION FOR PERSONAL SERVICES - Generally, the costs of compensation for personal services are allowable to the extent that total compensation of individual employees is reasonable, and such costs are not in excess of what is allowable under the Internal Revenue Code and Treasury regulations. In determining "reasonableness," consideration should be given to the contractor's established policy, and to compensation paid by other firms of the same size, in the same industry, or in the same geographic area for similar services. The following are the rules with respect to particular forms of personal compensation: (a) Salaries and wages - allowable. (b) Bonuses and incentive compensation (whether in cash or stock of the contractor) - allowable to the extent that over-all compensation is reasonable and if paid pursuant to an agreement between the contractor and employee before the services were rendered, or an established plan followed so consistently by the contractor as to imply, in effect, an agreement to make such a payment. (c) Stock options - unallowable. (d) Deferred compensation - allowable to the extent that: (1) except for past service pension and retirement costs, it is for services rendered during the contract period; (2) it is reasonable in amount; (3) it is paid pursuant to an agreement entered into in good faith between the contractor and employees before the services were rendered, or pursuant to an established plan followed by the contractor so consistently as to imply, in effect, an agreement to make such payments; and (4) if it is subject to approval by the Internal Revenue Service, it meets the criteria and standards of the Internal Revenue Code and the Treasury regulations. (e) Fringe benefits - allowable to the extent required by law, employer-employee agreement, or an established policy of the contractor.

7. CONTINGENCIES - Generally, contingencies are unallowable for historical costing purposes. In connection with estimates of future costs, contingencies may be allowable when they arise from presently known and existing conditions, the effects of which are foreseeable within reasonable limits of accuracy, e.g., the anticipated costs of rejects and defective work.

8. CONTRIBUTIONS AND DONATIONS - Contributions and donations are unallowable.

9. DEPRECIATION - Any method of depreciation permissible under the Internal Revenue Code of 1954, including straight line, double declining balance, and sum-of-digits, is allowable provided it is used consistently. Such depreciation must be computed upon the property cost basis used by the contractor for federal income tax purposes. Special rules are pro-

vided for "true depreciation" on emergency facilities covered by certificates of necessity. Depreciation on idle or excess facilities is not allowable unless such facilities are reasonably necessary for standby purposes. With respect to fully depreciated assets, a reasonable use charge may be agreed upon and allowed unless a substantial portion of the depreciation charged represents a recovery against government contracts.

10. EMPLOYEE MORALE, HEALTH, AND WELFARE COSTS - Reasonable costs of such activities as house publications, health or first-aid clinics, recreational activities, and employee counseling services are allowable.

11. ENTERTAINMENT COSTS - Entertainment costs are unallowable.

12. EXCESS FACILITY COSTS - Costs of maintaining and repairing idle and excess facilities, except for those reasonably necessary for standby purposes, are unallowable.

13. FINES AND PENALTIES - Costs of fines and penalties are unallowable except when incurred as a result of compliance with specific provisions of the contract, or instructions in writing from the contracting officer.

14. FOOD SERVICE AND DORMITORY COSTS - Reasonable losses from the operation of food and dormitory services including cafeterias, dining rooms, canteens, lunch wagons, vending machines, living accommodations, etc., are allowable if they are allocated to all activities served.

15. INSURANCE AND INDEMNIFICATION - Costs of insurance required under the contract are allowable. Costs of other insurance maintained by the contractor in connection with the general conduct of his business are allowable subject to certain detailed limitations.

16. INTEREST AND OTHER FINANCIAL COSTS - Interest on borrowings (however represented), bond discounts, costs of financing and refinancing operations, etc., are unallowable.

17. LABOR RELATIONS COSTS - Costs incurred in maintaining satisfactory relations between the contractor and its employees are allowable.

18. LOSSES ON OTHER CONTRACTS - Losses on other contracts are unallowable.

19. MAINTENANCE AND REPAIR COSTS - Normal maintenance and repair costs are allowable. In addition, extraordinary maintenance and repair costs are allowable providing they are properly allocated to the periods to which they are applicable.

20. MANUFACTURING AND PRODUCTION ENGINEERING COSTS - Costs of manufacturing and production engineering are allowable.

21. MATERIAL COSTS - Material costs, e.g., the costs of raw materials, parts, sub-assemblies, components, and manufacturing, are allowable. When such materials are purchased specifically for and identifiable solely with per-

formance under a contract, the actual purchase costs thereof should be charged to the contract.

22. ORGANIZATION COSTS — Expenditures in connection with the organization or reorganization of a business or raising capital are unallowable.

23. OTHER BUSINESS EXPENSES — Recurring expenses such as are connected with shareholders' meetings and reports, and required reports to taxing and other regulatory bodies are allowable when allocated on an equitable basis.

24. OVERTIME, EXTRA-PAY SHIFT, AND MULTI-SHIFT PREMIUMS — Costs of overtime, extra-pay shift, and multi-shift premiums are allowable to the extent that they are incurred in conformity with ASPR Section XII. Under these latter provisions, overtime is to be limited to and be the minimum needed for the accomplishment of specific work.

25. PATENT COSTS — Costs of preparing disclosures, reports, and other documents required by the patent clauses and other similar provisions of the contract are allowable.

26. PLANT PROTECTION COSTS — Salaries, depreciation, and other costs incurred in connection with plant protection are allowable.

27. PLANT RECONVERSION COSTS — Reconversion costs are unallowable except for the cost of removing government property and the restoration or rehabilitation caused by such removal.

28. PRECONTRACT COSTS — Precontract costs are allowable to the extent that they would have been allowable if incurred after the date of the contract.

29. PROFESSIONAL SERVICE COSTS — LEGAL, ACCOUNTING, ENGINEERING AND OTHER — Costs of professional services rendered by the members of a particular profession — legal, accounting, engineering, etc. — who are not employees of the contractor are allowable when reasonable in relation to the services rendered. However, the costs of professional services must not be contingent upon recovery of the costs from the government.

30. PROFITS AND LOSSES ON DISPOSITION OF PLANT, EQUIPMENT, OR OTHER CAPITAL ASSETS — Profits or losses arising from the sale or exchange of plant, equipment, or other capital assets should be excluded in computing contract costs.

31. RECRUITING COSTS — Costs of help-wanted advertising, operation of an employment office, etc., are allowable, except for special benefits or emoluments offered to prospective employees which are beyond the standard practices in the industry.

32. RENTAL COSTS (INCLUDING SALE AND LEASEBACK OF FACILITIES) — Rental costs of land, buildings, and equipment are allowable, if the rates are reasonable in light

of such factors as rental costs of comparable facilities and market conditions in the area, and the life expectancy and value of the facilities leased. Rental costs specified in sale and lease-back agreements are allowable "only to the extent that such rentals do not exceed the amount which the contractor would have received had it retained legal title to the facilities."

33. RESEARCH AND DEVELOPMENT COSTS — Research and development is divided for the purposes of these cost principles into three principal divisions: (1) basic research — research directed toward increase of knowledge in science; (2) applied research — attempts to determine and expand the potentialities of new scientific discoveries or improvements in technology, materials, processes, methods, devices, and techniques, and attempts to "advance the state of the art;" (3) development — the systematic use of scientific knowledge which is directed toward the production of, or improvements in, useful products to meet specific performance requirements, but exclusive of manufacturing and production engineering.

The costs of independent basic research and independent applied research are allowable under either production contracts or research and development contracts, provided such costs are allocated to all the work of the contractor. The costs of independent development are allowable under production contracts to the extent they are related to the product lines for which the government has contracts, provided such costs are reasonable in amount and are allocated as indirect costs to all work of the contractor on such product lines. With respect to research and development contracts, the same rule is applied, unless the contractor's normal course of business does not involve production work. In the latter case, the cost of independent development is allowable to the extent that such development is related and allocated as an indirect cost to the field of effort of government research and development contracts.

The reasonableness of expenditures for independent research and development should be determined in light of all pertinent considerations such as previous contract research and development activity, cost of past programs, and changes in science and technology. Such expenditures should be pursuant to a broad planned program which is reasonable in scope and well managed. In some cases, in order to provide greater motivation for more efficient accomplishment of the independent research and development program, the government may bear less than an allocable share of the total cost of the program.

34. ROYALTIES AND OTHER COSTS FOR USE OF PATENTS — Royalties on a patent or amortization of the cost of acquiring by purchase a patent or rights thereto, necessary

for proper performance of the contract, are allowable.

35. SELLING COSTS - Costs in connection with the marketing of the contractor's products are allowable to the extent that they are reasonable and are allocable to government business.

36. SERVICE AND WARRANTY COSTS - Service and warranty costs are generally allowable.

37. SEVERANCE PAY - Costs of severance pay are allowable only to the extent that it is required by (1) law, (2) employer-employee agreement, (3) established policy that constitutes, in effect, an agreement on the contractor's part, or (4) circumstances of the particular employment.

38. SPECIAL TOOLING COSTS - The cost of special tooling, when acquired for and its usefulness is limited to one or more government contracts, is allowable.

39. TAXES - Taxes which the contractor is required to pay are allowable except for (1) federal income and excess profits taxes, (2) taxes in connection with financing or refinancing operations, (3) taxes from which exemptions are available to the contractor directly or available to the contractor on an exemption afforded the government except when the contracting officer determines that the administrative burden incident to obtaining the exemption outweighs the corresponding benefits accruing to the government.

40. TERMINATION COSTS -

(a) Common items - The cost of items reasonably useable on the contractor's other work shall not be allowed unless the contractor submits evidence that it could not retain such items at cost without sustaining a loss.

(b) Costs continuing after termination - Generally allowable.

(c) Initial costs - Including starting load (excess spoilage, idle time and subnormal production, employee training, and unfamiliarity or lack of experience with the product) and preparatory costs, are allowable.

(d) Loss of useful value of special tooling, special machinery, and equipment - Generally allowable.

(e) Rental costs under expired leases - Generally allowable.

(f) Settlement expenses - Generally allowable.

(g) Subcontractor claims - Generally allowable.

41. TRADE, BUSINESS, AND PROFESSIONAL ACTIVITY COSTS -

(a) Memberships - Costs of member-

ships in trade, business, technical and professional organizations are allowable.

(b) Subscriptions - Costs of subscriptions to trade, business, or technical periodicals are allowable.

(c) Meetings and conferences - Costs of meals, transportation, rental of facilities, etc., where the primary purpose of the incurrence of such costs is the dissemination of technical information or stimulation of production are allowable.

42. TRAINING AND EDUCATIONAL COSTS - Costs of a program of instruction at noncollege level, designed to increase the vocational effectiveness of bona fide employees, are allowable. The cost of part-time education, at an undergraduate or post-graduate level, related to the job requirements of bona fide employees is allowable, except for that part of such costs which includes the salaries and compensation of the trainees. The costs of tuition, fees, training materials, and textbooks in connection with scientific and engineering education at a post-graduate college level related to the job requirements of bona fide employees are allowable for a total period not to exceed one year.

43. TRANSPORTATION COSTS - Transportation costs, including freight, express, carriage, and postal charges relating either to goods purchased, in process, or delivered are allowable.

44. TRAVEL COSTS - Travel costs are generally allowable. Necessary and reasonable costs of family movements and personnel movements of a special or mass nature are allowable, subject to allocation on the basis of work or time period benefited when appropriate.

ADVANCE UNDERSTANDINGS ON PARTICULAR COST ITEMS - With respect to some costs it may be very difficult to determine "reasonableness" and "allocability," particularly in connection with firms or separate divisions thereof which may not be subject to effective competitive restraints. Therefore, it is important that there be agreement between the contractor and the government in advance of the incurrence of special or unusual costs.

Examples of costs on which advance agreements may be particularly important are: (1) compensation for personal services; (2) use charge for fully depreciated assets; (3) deferred maintenance costs; (4) precontract costs; (5) research and development costs; (6) royalties; (7) selling and distribution costs; and (8) travel costs, as related to special or mass personnel movement.

PROBLEMS CONCERNING EDPM

Mr. W. J. Kennevan, Head Data Processing Systems Branch
Office, Comptroller of the Navy

The problems concerning EDPM lie primarily in the areas of systems development, organization, and performance evaluation.

Insofar as systems development is concerned, when Congress provided that a Comptroller be established in each of the military departments, it imposed a legal responsibility on Comptrollers for establishing and supervising all aspects of financial systems covering budgeting, accounting, progress and statistical reporting, internal auditing and the administrative organization structure and managerial procedures involved. There has been no change to this Law in the 10 years it has been on the books. Comptroller personnel remain responsible for devising and controlling financial management systems. The NavCompt manual, instructions, notices, and handbooks delegate operating responsibility in the financial management field to the Comptrollers at the Bureau and station levels. These responsibilities include devising local systems and recommending instructions and procedures relative to financial operations under Bureau management control.

Therefore, we look to the Comptroller personnel at the Bureau and field levels to properly devise and control financial systems which are compatible with requirements of higher authority and which are economical and efficient—whether they be manual, mechanical, or "electronic" systems.

What does this mean as far as EDPM is concerned? Just this—that no matter at what level or by whatever organizational element or committee a study is undertaken, the Comptroller must be involved if financial procedures are to be included. We cannot operate on a unilateral basis with a "non-Compt" data processing group—the Comptroller must participate. This is necessary not only because of legal considerations, but it must also be remembered that financial systems are not static things. We seem to be confronted with constant changes in principles as well as procedures in the field of Federal financial management. We cannot entrust to non-professionals the devising of systems for standard costs, double-entry accounting, cost—based budgeting, refinements in application of overhead, accrual accounting and realignment of appropriation structures. These are just a few developments and proposals of recent vintage which come to mind without taking a deep breath. If we really stop and analyze the Comptroller's responsibilities (responsibilities which he can't foist on anyone else) we would have to run the gamut of appropriation accounting, allotment accounting, cost accounting, job order accounting, material accounting,

overhead accounting, appropriation budgeting, station budgeting, internal audit, internal control, financial systems design, financial analysis and reporting and all the other parts of the whole job which represent the Comptroller's overall duties. These basic Comptroller Functions can't be placed blandly in the hands of technicians simply because of the birth of a marvelous piece of electronic gear which is capable of doing a faster, better, more accurate, more all-encompassing processing job than the mechanical equipment you have been accustomed to using. You can't transfer your systems responsibilities to EDP technicians on the theory that they will pour a variety of raw data into a computer and produce necessary financial management intelligence. Despite present-day advances in mechanization, we have not reached that utopia whereby we simply tell our problem to an electronic "brain" and get an immediate, sympathetic and infallible answer.

If the Comptroller, at any level, relinquishes his financial systems responsibility, he can expect to go into total eclipse. I know that I am belaboring this point, but I am deliberately doing so, because there is considerable misunderstanding on the part of Comptroller personnel as to their role in the "electronic evolution." As a matter of fact, there is some evidence of a dangerous lack of interest on the part of key Comptroller personnel.

If you are wondering where your systems responsibility terminates, let me say that it doesn't. The EDP unit may do the actual programming but from NavCompt's viewpoint we will continue to look to you to discharge your basic responsibilities for seeing that proper financial systems are devised, installed, and that they operate effectively.

By the same token, you can't blindly sit by and ignore progress—because it is progress and it has some wonderful possibilities in terms of making your job easier—your product better—and your services more valuable in the future. This is a team-work effort. You have got to work with the EDP component or their job and yours may both be failures.

Now all of this may sound theoretical. However, as we move toward integration of data processing, wherein functions such as Personnel, Payroll, Cost, Production and Supply use the same primary or by-product data for collecting, recording and reporting management information, the data processing operations may well take place in a separate and distinct organizational component. This has already occurred at some field stations, so I think it is important that you have an understanding as to who re-

mains responsible for financial systems development and control.

Organization

Next, the organization for electronic data processing. The first point I want to make is this — the Navy Comptroller does not prescribe the organizational location of the operating equipment. We recognize that to take full advantage of the equipment's potential, it should be used on a station-wide basis to the greatest extent possible. Of the 15 naval installations using EDPM for financial management purposes at the beginning of this year, 6 installations are in the Comptroller Department and 9 are in departments other than Comptroller. In all cases the equipment is used for more than financial management purposes. It is also used for personnel, inventory and supply, and scientific and engineering purposes. This substantiates the point that, in order to use EDPM in the most advantageous manner, the equipment should be applied to a number of uses. This doesn't mean that it isn't possible to restrict the equipment to a single functional use, but this would not normally permit the most economical and practical use.

The Bureau of the Budget reached this same conclusion in its draft report on EDP responsibilities throughout the Federal government. They maintain that limiting the use of EDP equipment to a single function or system such as financial, management, or to a single organizational element of an agency such as the Comptroller or the Supply Manager, is "completely unrealistic and can only lead to ineffective and uneconomical equipment utilization."

The same report goes on to say that "when the advantages of EDP equipment are exploited to the full, its utilization normally transcends organizational jurisdiction within an agency; EDP utilization often justifies revisions in organization; it thus becomes, and should always be, an instrument of the top level of the agency line of command, rather than a single subordinate level of line or staff jurisdiction." While this is probably true insofar as use of large-scale EDP equipment is concerned, I think they've gone completely overboard in making a general statement of this kind. And I'm not alone in this opinion—the Office of the Secretary of Defense, in commenting on the BuBud study, cautions that there should be no attempt to specify by rule which component of an organization should operate EDP equipment. OSD also told the Bureau of the Budget that over a period of time as general management learns to make effective use of EDPM, the need for separate specialized EDP staffs to deal with this problem will diminish and computers will

take their place as only one of the tools of management.

We shall thus still look to the Comptroller organization to see that the proposed financial management system conforms to external as well as local demands and that internal controls, validity checks and audit trails are established. Therefore, key personnel on the Comptroller staff, (including the Comptroller and Deputy Comptroller) should have more than a superficial exposure to EDP. They need to know the fundamentals of EDP and the application of these fundamentals to the particular type of equipment to be installed at their activity.

There are those who believe that exposure alone is not enough. They believe that all key personnel should understand the use of codes which pertain to data and have a good knowledge of the manner in which internally and externally stored data is captured, processed, and retrieved; and that they should know programming concepts, block diagramming, flow charting, and binary arithmetic. This is really fine if you have the time for it. Furthermore, this is a rapidly changing field and its just about a full-time job to keep up with the development of new techniques and equipment. I don't believe it is necessary for all key comptroller personnel. I wonder how many not directly concerned with EAM methods, have anything approaching a detailed knowledge of EAM procedures. The Navy is doing a capable job with its EAM equipment without top management having to delve into the intricacies of plug boards, gang punching, sorting, selecting, reproducing, and the myriad other machinations required to process data. As a matter of fact, I would be inclined to suggest that Comptrollers not concern themselves with the fundamentals of EDP and with the basics of the hardware, if it were not for the fact that the introduction of EDPM can have a chain reaction throughout the entire activity — a chain reaction in terms of its impact on organization, functional integration, communications, personnel, management controls, systems development, and data gathering; also upon transmission, processing, presentation, and analysis.

So much for organization for EDP in the field. Now we turn to the staff organizations and responsibilities for EDP programs at higher echelons. First of all, the Bureau of Ordnance requires that when a field station, on the basis of preliminary investigation, has determined that it can benefit from use of EDP equipment it must so advise the Bureau, outlining the specific program applications proposed and requesting authority to initiate a formal study. If the results of the study indicate to the Bureau that EDP is economically feasible there is then prepared a feasibility study.

Upon receiving BuOrd's approval, the feasibility study must then go to the Navy Manage-

ment Office for review. It is at this point that NavCompt gets into the act. NMO furnishes us with a copy of the feasibility study for our review. A meeting is then set up at the EXOS level and the proposed use of the equipment is discussed. You will recall that NavCompt has no responsibility as to what kind of hardware a Bureau of field station will use. However, NMO prefers that we meet with them and provide comments on the proposed usage. There have been, for example, 3 disapprovals or deferrals - BuShips, NGF Washington, D.C., NSD Bayonne - as a result of this meeting wherein it was found that the feasibility studies contained incomplete or incorrect information.

After clearing this hurdle the study is then forwarded to the Administrative Assistant to the Secretary of the Navy for Navy Department approval. Final approval is in the Office of the Assistant Secretary of Defense (Comptroller).

This is very complicated and time consuming. But it is getting less complex and more rapid as the various review levels become more experience in analyzing the studies and as stations become more proficient in preparing them.

This review is necessary. The Navy is now spending \$15,000,000 yearly for rentals of EDP and associated equipment for business-type purposes only (to say nothing of the preparation, installation and operation costs). This is why the Secretary of the Navy considers that rigid controls are necessary.

NavComp's principal interest in an EDP proposal begins with the review of the so-called "application plan." An application plan is the detailed process of analyzing existing procedures and mission requirements, and the design of a system and a set of procedures for the use of EDP; and in addition, the establishment of specifications for the equipment. The application plan is usually developed in the field while the feasibility study is going through the various review processes.

Our interests are, of course, centered on those phases of the plan which are concerned with financial management - that is, appropriation accounting, allotment accounting, payroll, leave, and bond accounting, cost accounting, budgetary applications, facilities and stores accounting and those phases of production planning and control which relate to cost accounting requirements.

Our experience to date is that the "application plan" does not include sufficient information for us to properly evaluate the proposed system. The reason for this is because we must know such things as:

1. The extent to which the comptroller personnel in fact participated in the development of the proposed EDP system.

2. Any organizational re-alignment and its effect on the comptroller function.
3. The adequacy of internal controls and audit trails, within and outside of the Data Processing unit.
4. The provisions for stand-by facilities and emergency procedures.
5. The proposals for deviations from use of prescribed forms and procedures and acceptability of such proposals.
6. The authenticity and the verification of input data.
7. Finally, the purification of data prior to transfer to EDP operations.

So, typically, we review the available information together with representatives of the management Bureau. We then contact the field station, and visit the station to discuss the proposed procedures and reach a mutual agreement as to what is necessary to satisfy local, Bureau, NavCompt, OSD, and GAO requirements.

At this point, I want to explain that, insofar as EDPM programs are concerned, no two Bureaus of the Navy Department are organized exactly alike. Thus, our "contact" problem is a bit difficult. However, there is one ironclad rule that we follow. Whenever we have a study involving financial procedures we contact the Bureau Comptroller Division before reviewing and approving the procedures. We also work with Data Processing personnel in other than the Comptroller Department, but we do this on a joint basis with Bureau Comptroller representatives. This is consistent with the BuOrd directive on the EDP program which notes that the Data Processing Analysis Branch, AdB, has been established "to work jointly with other Bureau Division systems specialists."

There is one final step required. This is the on-site survey, called a "Readiness Survey," conducted jointly by the management Bureau and the Navy Management Office. A representative of OSD also participates in these surveys. These usually take place 60-90 days prior to the equipment installation date. The purposes of a Readiness Survey is to determine that the EDP staff is on board and trained; that initial applications have been tested and debugged; that there is a realistic schedule for conversion, including phased loading and parallel operations; and that a logical system for measuring before - and after - cost benefits has been established.

At first blush, this may seem to be another "cross" for the field stations to bear. But, upon reflection, you will find that this is really additional insurance for the Commanding Officer so that he can be assured that this major con-

version will take place with a minimum of confusion and difficulty.

You will be interested in knowing that NMO will not conduct a Readiness Survey for any EDP installation which involves financial management applications until they have been notified by NavCompt that our requirements have been satisfied. This proviso was reiterated recently by NMO at a Data Processing Program meeting attended by all Bureaus and Offices. I am sure that you will realize the importance of this to all of us in the Comptroller field—because this requirement makes certain that NavCompt has reviewed the proposed procedures. And we, of course, see to it that Bureau Comptroller personnel are aware of an agreement with the procedures and, as previously mentioned, that field Comptroller personnel have played their proper role in development of the system.

Well that will give you a rough idea of the organizational interrelationships involved in a conversion to EDP.

Performance Evaluation

Now we come to the last skeleton in the EDP closet — that is — Performance Evaluation.

Although there are now 52 EDP installations at 40 Naval activities — 32 of which process business type data, and some have been in operation for over 3 years — there has been virtually no organized appraisal program up to this time.

The patent reason given for the deferral in evaluating the effectiveness of EDP installations is that the installations should be given a reasonable shake-down period before being subjected to the scrutiny of the appraisers. I believe that a more exact reason for the delay is that there just were not enough people with know-how available to determine whether or not the Navy has reaped the benefits, which are usually outlined in glowing terms in the feasibility studies.

There are a few installations which have been subjected to an internal evaluation "of sorts." As a result of these reviews the Navy Department does have some indication of the benefits attainable from proper use of EDPM.

For Example:

In the EXOS Data Processing Branch in Washington, a medium-capacity computer was installed in July 1955, primarily to process the Department civilian payroll of 18,000 accounts. Second shift personnel salaries and EAM machine rentals were eliminated almost immediately; overtime was reduced 100 hours per pay period, and a direct saving of \$48,000 annually was effected.

At the Portsmouth Naval Shipyard, where a medium-capacity computer was installed in the Comptroller Department in April 1956, there is a net annual savings of approximately \$28,000

—most of this savings being in the payroll operation. Overtime costs of \$22,000 a year were eliminated completely.

SPCC reports a net annual savings of \$50,000.

In Washington at BuShips Headquarters they state that their EDP installation has resulted in considerable tangible benefits. They have reduced a requirement for 10 bookkeeping machines to 3 for processing appropriation accounting. With the many innovations in financial procedures which have come about in the last few years, they estimate that many additional employees would have been required had they not had EDP equipment. They also advise us that exception reporting has paid off — people are spending less time on more numerous and more complex jobs than was required just a few years ago.

At NSC Oakland, a \$56,000 per annum reduction in direct data processing costs is reported.

There are other claims in the indirect savings area, such as at ASO where it is estimated that reduced material costs are in excess of \$8,000,000.

Many activities limit their claims to intangible benefits such as systems clean-up, exception reporting, faster processing, more accurate information and operational integration.

The "savings" and benefits mentioned above are based on statements made by the activities or somewhat superficial reviews made by the management Bureaus. Until now, no one has attempted to "pin down" any activities as to realization of claims of direct or indirect benefits as anticipated in the feasibility studies. But this honeymoon is just about over.

Sometime ago NMO issued an instruction in implementation of a DOD directive which requires that, within one year following the installation of an electronic computer for business-type operations, a representative of SecDef and NMO must conduct an on-site performance review to verify the benefits being obtained. In this notice NMO observes that OSD is reluctant to approve any new installations of EDPM until more of the existing installations have been evaluated and found to be successful.

This on-site performance review will be interested in these basic items:

1. An explanation of management benefits resulting, or anticipated, from the installation of EDP. You will have to provide information as to accomplishments which have been realized directly or which may be related indirectly to EDP but which have been substantially influenced by the system. This covers improvements in procedures and techniques and advantages resulting from the capability to produce data not economically available prior to EDP. These would include: better budgetary information, reduced pipeline requirements, inventory re-

duction, more timely reports, and additional useful management reports. When monetary savings can be aligned to each of these items, that information must be supplied.

2. Annual operating costs of the Data Processing organization. This includes salary, equipment rental, supplies and other significant support costs. It is expected that work measurement factors will be applied in developing this information.

3. Personnel and equipment reductions resulting from installation of the system. A comparison will be made between the personnel and equipment releases as projected in the feasibility study and actual accomplishments. If there are significant discrepancies between the "projected" and "actual" the discrepancies must be explained.

4. The cost of data processing as projected in the feasibility study versus the actual. This will also include a comparison of the planned applications as anticipated in the feasibility study with the actual experience in getting the applications "on the air."

5. Finally, the one-time non-recurring costs. These encompass the feasibility and applications studies, site preparation, initial training and education, programming, file conversion and parallel operations.

Conclusion

In conclusion I will summarize my principal points:

First of all — the development and control of financial systems and procedures will continue to be a basic responsibility of the Comptroller. We accept the fact that the computer is here to stay. We shall use it whenever and wherever it proves to be economically desirable to do so. In the not-too-distant future the present "dream world" of integrated data processing will become a reality. This hasn't yet been done anywhere in the Navy on a completely integrated basis but some good efforts have been undertaken. There are many excellent plans to do this (Long Beach) and the future holds considerable promise for a combination of reduction in data processing costs, more accurate data, faster processing, and fewer, but

more useful reports. This can only come about by the combined efforts of people at all echelons throughout the Navy, by an understanding of the vital role you must play, by an appreciation and understanding of the many functional responsibilities which exist now and will continue to exist whether we operate on a manual, EAM or EDPM basis, by avoiding the pitfall of empire building around a sophisticated piece of hardware and by utilizing the best available tools and talents in the most intelligent manner.

Secondly — we are not too concerned about the organizational location of the equipment, and who will do the programming. I realize that I haven't mentioned programming before this — I've done this deliberately because programming is becoming less complex day by day. In a very interesting article, "The Next Generation of Computers," in the March issue of FORTUNE magazine it is brought out that "the time will come when clerical workers with a little special training will probably do most of the programming for day to day computer problems." The article explains the development of automatic programming, by which computers can act on relatively simple instructions, written in a language very much like ordinary English supplemented with mathematical notations. Recently one computer manufacturer drew up a program in both conventional machine language and by the automatic programming method. It took two weeks to prepare the program in the conventional manner and just one hour to do so with the automatic method. You can readily see that the significance of technical programming know-how will become less important in the future.

The final point is this — evaluation of savings and benefits from the use of EDPM is becoming more sophisticated. Bald statements which can't be combed for facts will no longer be acceptable. You'll have to be prepared to back up your claims — you can't talk in generalities, and play with a few loose figures, such as 39-24-36 — a figure like this must be supported. So, if you have underway, or are contemplating a feasibility study, use your traditional accounting conservatism and be cautious in making claims as to expected savings and benefits.

POLICY GUIDANCE UNDER PUBLIC LAW 863 AND DOD DIRECTIVE 7040.1

Mr. Robert D. Benson
Deputy Assistant Secretary of the Air Force (Financial Management)

Public Law 863 of the 84th Congress established the requirement that the accounting in the Federal Government generally be on the double-entry, accrual basis for the purpose of improving the financial management of the Government's business affairs. Under the aegis of this Law the Acting Secretary of Defense, Thomas S. Gates, on 29 May 1959 issued Directive 7040.1 under the title, "Program for Improvement in Financial Management in the Area of Appropriations for Operation and Maintenance."

The date, 29 May 1959, is an important date since it represents the time of release of the first of several Directives which will be developed and issued by the Office of the Secretary of Defense to set forth the principles and policies to be followed by the military departments in the development and execution of a time-phased program in terms of the specific projects required to complete implementation of Title IV of the National Security Act, and Public Law 863.

While I will not discuss the many technical aspects of the DOD Directive - I would like to hit a few "high spots" with respect to the objectives of the Office of the Secretary of Defense, as well as some of the major problems which will be encountered in implementing Public Law 863 and the DOD Directives issued in connection therewith, including No. 7040.1.

I stress the necessity for the cooperation and active participation of all military and civilian personnel in all functional areas and at all organizational levels, in implementing Public Law 863 and Title IV. The top-level interest, as well as the type of top-level review which will be exercised in the development and execution of our time-phased "implementation" program demands this.

Turn now to some of the basic requirements of the DOD Directive, particularly the "account-structure" requirements and the "implementing date" requirements. DOD Directive 7040.1 provides that under each appropriation for operation and maintenance there should be one account structure for classifying costs for the joint purposes of programming, planning, budgeting, accounting, and reporting. Summary accounts used in budgets and reports submitted to higher levels are to be distinguished from supporting cost accounts used at operating levels. The summary accounts are called "budget accounts" and the supporting expense or cost accounts used at operating levels are called "cost accounts." Budget accounts are comprised of "budget-program accounts" and "budget-activity accounts." All budget accounts will be prescribed by the Assistant Secretary of Defense (Comptroller) in accordance with the criteria set forth in the Directive. The Directive provides that uniform budget-program accounts should be established for the three military departments, which should represent logical groupings of "budget-activity accounts" based upon their organizational structures and primary functions. So far as feasible, such groupings should be

comparable for the three military departments. On the other hand, the cost accounts are to be devised by each military department primarily on the basis of the needs of local management. They should be based upon identification of functions and organizational units responsible for performance at the operating level. However, at the same time, provision must be made for such cost accounts as may be required to develop information prescribed for use in recurring budgets and reports to higher levels - and the Directive so provides. The Directive further states that it should be assumed that implementation of the required program must be completed by July 1, 1962. A time-phased program for implementing the Directive must be submitted to the Assistant Secretary of Defense (Comptroller) for approval within six months from the date of the Directive - or, in other words, not later than November 30, 1959. Copies of these programs are to be furnished to the Treasury Department, Bureau of the Budget, and the General Accounting Office by the Assistant Secretary of Defense (Comptroller) as required by BOB Bulletin No. 57-5. The approval of the departmental programs by the Assistant Secretary of Defense (Comptroller), subject to such requirements for amendments as may be necessary to conform the program to the policies set forth in the Directive, must be conveyed to each military department for action and implementation within nine months from the date of the Directive - or, in other words, not later than February 28, 1960. Thus, we will have just two years and four months from the date OSD is required to approve or direct our implementing plan, until the plan is required to be fully implemented. Incidentally, the Directive provides that each military department must submit a quarterly progress report to OSD on the development and installation of its program, pursuant to the phased schedule approved by the Assistant Secretary of Defense (Comptroller).

During the development of the DOD

Directive, there was discussion about "operating budgets," "simplified funding techniques," "operating units," "integrated budgeting and accounting," "general-ledger accounting," "inventory accounting and reporting," and "installation-support costs." There may still be some differences of opinion as to the meaning of certain words and phrases used in the DOD Directive, as well as the intent of the Directive in certain areas. However, let's look for a moment at the operating budget concept.

Operating Budgets

In order to provide the maximum degree of decentralization of financial authority in the area of Operation and Maintenance programs, Public Law 863 and the implementing DOD Directive provide for the use of an operating budget for each installation, or other operating unit, as a basis for obtaining authority to finance operations, with emphasis on costs incurred. The operating budget should be revised as necessary during the fiscal year. As contemplated by the law, the operating budget, after analysis, review, and approval, by the next higher level of command or management, would give the operating unit financial authority to incur costs and obligations, with only one over-all absolute limitation - the total dollar amount of the current operating budget. The operating unit should have the privilege of exceeding the budget estimate for any individual item, provided there are decreases for other items so that the amount of the budget is not exceeded. Explanations of major budget deviations should be required as a basis for high-level review and appropriate action, wherever it might be considered the deviations were not justified. Incidentally, you may have noticed that up to this point, I have not mentioned "funded" or "unfunded" costs. In this connection, I want to point out that the Office of the Secretary of Defense holds strongly to the concept that the device used to establish the over-all financial authority and limitation of an operating unit should be the allotment from the appropriated fund for operation and maintenance. Under this concept, ultimately an operating unit would have only one allotment and obligation limitation based upon the total amount of the current operating budget. Under this concept every item of operating cost or expense would be required to be paid for and charged to the allotment, or budget limitation. While the DOD Directive, as written, does not require such "full-funding," I want to point out that under the Directive there is a limitation placed on the total costs to be incurred by each operating unit, as well as upon its obligations and funded costs. The total cost limitations will be made parallel to fund limitations, commencing with apportionments of funds. So, as you

can see, a separate limitation on total costs is equivalent to a separate limitation on unfunded costs. This will be the same as a dual allotment limitation - one for the total funded costs and obligations, and the other for the total unfunded costs. Not only will cost decisions have to be made in consideration of the impact separately on these two kinds of cost limitations, but operating budgets and reports, and supporting accounts, at all levels, will have to be split in detail between funded costs and unfunded costs until such time as we employ the technique of funding the total amount of an operating unit's current operating budget. At this point I should point out that while a total cost limitation which includes unfunded costs is not subject to control and enforcement under Section 3679, Revised Statutes, the funded portion of the operating budget is separately limited in terms of obligations which are subject to control and enforcement under these statutory provisions.

Simplified Funding Techniques - Operating Units

Public Law 863 provides that in order to have a simplified system for the administrative subdivision of appropriations or funds, each agency shall work toward the objective of financing each operating unit, at the highest practical level, from not more than one administrative subdivision for each appropriation or fund effecting such unit. DOD Directive 7040.1 includes the definition of an "operating unit" which has been agreed upon. Under this definition, generally speaking, all activities at any installation under one commander would be considered as a single operating unit. However, wherever there are any tenant activities or separate activities which are under separate commanders, each commander would have a separate operating unit. Budgeting and accounting will necessarily follow these placements of responsibility. However, OSD has agreed that the Air Force may include funds for small tenant units subject to the same higher level command - or funds for small tenants which are under other military commands - within the same allotment which is granted to the installation commander. Such exception is predicated upon the small size of such tenant units.

While Public law 863 clearly indicates that the ultimate objective is to have only one allotment to each operating unit from each appropriation or fund effecting such unit, there is an interim requirement, which is recognized in DOD Directive 7040.1, for maintaining additional obligation limitations under the allotment to each operating unit, based upon the separate budget programs which they administer. The Assistant Secretary of Defense (Comptroller) has repeatedly stated that the ultimate elimi-

nation of these additional obligation limitations will depend upon the performance demonstrated in the financial system, especially in consideration of (1) the preparation and submission of good budgets at all levels based upon cost, including timely budget revisions and reprogramming actions, and (2) providing evidence of internal departmental discipline at all levels in adhering, within reasonable limits, to estimates, in terms of budget accounts, shown in the latest approved operating budgets. In the interim, under each operation and maintenance appropriation, separate obligation limitations will continue to be established, in connection with apportionment action, for the several budget-program accounts at the departmental level, and this will necessarily require observance of such limitations through fund allocations and allotments within each military department.

Integrated Budgeting and Accounting - General Ledger Accounting

As I have pointed out, budgeting and accounting for total costs by each operating unit must necessarily be broken down between funded and unfunded costs for management purposes. Funded costs for each operating unit must be reconciled in the cost reports and budgets with each obligation limitation (generally speaking, at this time the budget-program account) as well as to the total allotment limitation on obligations. The cost accounts should include all the information which is necessary to reconcile funded costs to accrued expenditures, (e.g. funded expenses, capital expenditures locally financed, and the increases or decreases in inventory of consumable materiel locally financed). Likewise, the data for the reconciliations of accrued expenditures to obligations incurred (or obligation adjustments) should be produced directly from the accounts for unobligated balances under each fund allotment.

It should be recognized that, by the will of Congress, each appropriated fund is an independent financial entity to be accounted for separately from all other appropriated funds or revolving funds. Therefore, it is the policy of the Office of the Secretary of Defense that each allocation or allotment from a separate appropriated fund should be accounted for separately as an independent financial entity. This means that where double-entry bookkeeping is maintained, all accounts for fund resources and unpaid obligations, including accounts receivable and accounts payable on the accrual basis, as well as the undisbursed Treasury balance, should be maintained in a separate group, together with the unobligated balance accounts, for each allotment of funds. The accrued expenditure accounts should serve as control accounts over total

funded costs recorded in detail in the subsidiary cost ledgers. In no other way can it be assured that all these accounts will be kept in the required balance. Property accounts, including inventories (i.e., accounts which are not fund resources), should be maintained in a group separately from the fund accounts. In the case of the property accounts, the balancing equity accounts are the Government's investment in property. General ledgers, when maintained, should have the accounts maintained in these separately balanced fund groups and property accounts. Two layers of general ledgers should not be employed, i.e., (1) an additional general ledger for all funds and property combined and (2) the required ledgers for separate fund subdivisions and property accounts. A combined general ledger would be superfluous as well as expensive to maintain. While I have mentioned certain requirements under double-entry bookkeeping, I want to stress the fact that double-entry bookkeeping may not be necessary at all installations. Many installations may have simple conditions existing, and it may be possible to produce the required data for report purposes more simply by the use of a work-sheet record based upon obligation and expenditure transactions with adjustments for accruals at the beginning and end of each fiscal period.

Inventory Accounting and Reporting

Before I discuss the last topic, i.e., Installation - Support Costs, I refer again to the subject of property accounts. Property resources are not fund resources. In this connection, I might point out that the standard fund balance sheet or statement of financial condition on funds, as drafted by OSD to implement the reporting requirements under DOD Directive 7040.1, does not include any property resources - either inventories of consumable materiel or capital-type property. The reason, of course, is that property resources are not fund resources. Fund resources were expended upon initial acquisition of the property - but the property does not constitute a resource which can be used to pay obligations - therefore, property has no place in a statement reflecting the financial condition on funds.

This does not mean that property resources should not be managed or reported. Obviously, we must do both. As a matter of fact, DOD Directive 7040.1 requires a quarterly status report on the total cost of inventory of consumable materiel on hand and in transit currently being financed under the appropriation for operation and maintenance, classified by materiel category and stock class to the extent appropriate, at the reporting date, together with a summary of the changes in the amount of the Government's investment therein for the period

ending on the reporting date (reconciled with data on inventory changes shown in the cost report). So - while the property resources will not be included in the fund resource statements - property resources will be managed, accounted for, and the status of - and changes in investment therein - will be included in separate reports.

Furthermore, I would like to point out that not only should the property resources, as well as the fund resources, be managed - but the funds which finance procurement of materiel should be managed in the light of inventories and materiel requirements. On the other hand, costs of operation and maintenance should be budgeted and accounted for in terms of the costs of consumable materiel used, as well as the costs of all services purchased and used.

I want to emphasize that OSD holds strongly to the fundamental principle that acquisition of property should be programmed, budgeted, and accounted for in relation to the respective fund under which it is financed. This means also that all property owned should be accounted for in relation to the respective principal funds which finance acquisition, because new procurement requirements must be determined in the light of property owned, as well as gross needs and property in process of procurement. Consistent with this principle, and the specific fundstructure of the Department of Defense, OSD has advised us that each operating unit engaged in operation-and-maintenance programs should furnish separate property reports aligned with the principal funds which finance acquisition. These reports would identify, separately, inventories of consumable materiel (including minor equipment), as well as inventories of capital-type property, such as real property mainly financed under appropriated funds for construction, and military equipment and industrial and other installation equipment financed from appropriated funds for procurement and production, whether such capital-type property is in use, installed, or in the supply system. Inventories of consumable material (including minor equipment) must therefore, be segmented as between the consumable materiel inventories financed under (1) stock funds, (2) the operating unit's allotted fund for operation and maintenance, or (3) centrally procured consumable materiel financed under appropriated funds for procurement and production (for example spare parts) - furnished without charge to the operating unit. The inventories of consumable materiel financed under the appropriated funds for operation and maintenance might, under the provisions of the DOD Directive, include (1) consumable materiel locally procured, (2) consumable materiel acquired for stockage and use at the local level by purchase from stock funds, and (3) consumable materiel acquired by purchase from other appropriated funds.

Property reporting, in addition to being segmented by the related principal funds which finance acquisition, should be broken down further for collateral reporting to the National Inventory Control Points (or construction agencies) which are responsible for property management. These activities may be under separate commands. But this does not alter the basic requirement that all property reports should be submitted, with the related fund reports, in the command or management channel.

Installation-Support Costs

The last area upon which I shall touch is "Installation-Support Costs." There has been a considerable amount of discussion and consideration of the subject of distribution of such costs by, and within, each operating unit. With the issuance of DOD Directive 7040.1, the present status of the matter is substantially as follows:

1. Installation-support costs will not be the subject of separate budget-activity accounts from the standpoint of Department-of-Defense-wide budgets and reports. Budget-activity accounts will be in terms of primary functions, while the installation support functions will be considered only as component functions to the primary functions.
2. There will be no requirement to distribute installation-support costs of a host operating unit to minor tenants nor to tenants in the area of combat forces. However, major tenant operating units of a logistic nature will receive charges for installation-support costs where necessary to provide data required by management at any level.
3. Installation-support costs distributed may be confined to direct out-of-pocket costs applicable to the respective tenant operating units, or the separately identifiable activities within one operating unit. The remaining installation-support costs may be assumed directly by the host or major operating unit which is responsible for the performance of the installation support.
4. In establishing these requirements, it is understood that cost distributions might be required solely to meet the needs of the Office of the Secretary of Defense from the standpoint of uniformity in budget accounts prescribed for use in budgets and reports for the three military departments. However, there is nothing in the DOD Directive which will necessitate the changing of management responsibilities locally for installation-support costs.

Conclusion

Finally, I stress again the fact that under Public Law 863 and DOD Directive 7040.1, the cost accounts are to be designed primarily to meet the needs of local management. In applying the principle of budgeting for the costs of programs by the responsible operating unit, as enunciated in DOD Directive 7040.1, it should be made crystal clear that no operating unit should budget for costs which it cannot control to a significant degree or for which it is not functionally responsible, e.g., costs of military personnel of combat force units and costs of installation support where the operating unit is a tenant and has no assignment of management responsibility. Personally, I believe that the DOD Directive, if properly executed, will not only produce good results in better management at all levels - but, under its guidance and authority, we should be able to actually reduce,

or eliminate entirely, some of our present accounting and reporting procedures. In this endeavor I assure you that all system design proposals will be carefully reviewed with the objective of eliminating and prohibiting, any unnecessary accounting or reporting effort.

I realize that we have touched here upon the "highest" of the "high spots" - and even those in the "broadest" of fashions. Please take my word for it, DOD Directive 7040.1 is a complex document. Even after working on its development for months with representatives of the Treasury Department, Bureau of Budget, General Accounting Office, and OSD, I still find many occasions to discuss its intent with the several authors. I might also tell you that there are several major and important issues which have not been resolved as at this time, and, therefore, the Directive is presently silent on these points.

ARE YOU IN CAHOOTS WITH YOUR AUDITOR?

Major General W. P. Farnsworth, The Auditor General Office of The Comptroller of the Air Force

"The views expressed herein do not necessarily reflect the official views of the USAF nor The Comptroller of the Air Force."

TRENDS REFLECTED IN AUDIT REPORTS

Auditors have reported that some officials at base levels are tending to look at stock fund accounting and operations as someone else's "baby;" as a result, commanders and their staffs are neglecting their supervisory responsibility in this area at many places. This situation seems to stem in part from a basic lack of knowledge of stock funds; for example, when items of organizational clothing were placed under the Clothing Division, for which the Army is Single Manager, a number of commanders stopped stock balance and consumption reporting on these items, thinking that they now belong to the Army. Other instances of inaccuracies in accounting records and statements also were noted which were the direct result of lack of supervision. Commanders at base level should be impressed that they have a personal responsibility for the accounting and operations of stock fund branch office outlets equal to that they have for their own appropriated fund operations.

We have noticed what appears to be a growing tolerance of inaccurate financial reports in the stock fund divisions. Practically all of our most recent audit reports have commented on these inaccuracies; too few of them are the result of honest errors, and too many from plugged figures and arbitrary, unexplained "adjustments." In one case, a lower echelon was requested to report last month's figures for inclusion in consolidated statements if current figures were not available. This is the heart of the problem—the report due date is taking precedence over the accuracy of the reports submitted. We recommend a complete review of report due date requirements at the various echelons, to see how realistic they actually are, but received little encouragement that anything could be done to relieve the pressure at all levels. The equal importance of accuracy and timeliness of reports is recognized, but the relationship has gotten a little out of balance.

The expanded volume of stock fund accounting requirements is so familiar to you that I hesitate to even mention it here. It may have some significance that many of you were either forced, or chose, not to attempt compliance with

some of the requirements. For example, some of the commands have long since stopped trying to reconcile their POL billings from Middletown with the figures reported by their bases; many bases, after a frustrating period of trying to keep books on in-transit stock fund inventories, just threw in the towel, closed the in-transit account, and did not recognize any inventory other than that actually on the shelves. We are definitely committed to in-transit inventory accounting and constructive delivery and the people who have given up on it will have to get their second wind and overcome the roadblocks in the way of accurate accounting for in-transits. I hope we can report significant progress in this area the next time around.

A survey of fraud cases reported during the six months period ended 31 March 1959 shows a continuing need for closer surveillance and better management. Sixty-four fraud cases in the amount of \$90,451 were reported by resident auditors. This fact is particularly significant as during a previous 12 months period exactly the same number of fraud cases was reported, sixty-four. Of the cases reported in 1959, thirty-nine were in the nonappropriated area (seventeen of which were in open messes), seven in accounting and finance, and eighteen in other base appropriated activities. The predominance of fraud at open messes is due to the sensitivity of the operation in that cash and merchandise susceptible of pilferage is always right at hand.

The recent summary report of audit of Officers' Open Messes showed that the management of these messes is slowly deteriorating. Four areas of operation in which deficiencies were found during last year's audit were compared with the audit of the same areas this year. Deterioration of the management is indicated by the percentage of increased deficiencies reported in the following areas; bar operations 12%, other revenue producing areas 4%, furniture and equipment 15%, and purchasing and receiving procedures 16%. These, of course, were not the only areas that were covered during the audits, but are representative of the whole operation. In spite of General White's letter of last November on "worthless checks," conditions continue to be unsatisfactory.

AUDIT REPORTS AS MANAGEMENT TOOLS

As of 31 March 1959 we performed an audit of selected areas of the appropriation accounting function at a majority of Air Force installations. All deficiencies cited in the reports issued by the Resident Auditors were such that they could be corrected at base level. To be certain that you were aware of the areas of weakness that were noted Air Force-wide, I sent a letter which listed these weaknesses to Comptroller of each major command which is normally identified in summary reports. In that letter I suggested that a final recheck by you prior to the 30 June deadline might be appropriate. I hope that you took advantage of this "tool," and that you had a "Happy New Year."

I appreciate that the major commander cannot see every audit report or command summary, but sometimes I wonder if any of the audit findings are brought to the attention of some of the commanders. In a recent instance, we found it necessary to give our Liaison Officer at a major command specific instructions to assure that the contents of an audit report were brought to the personal attention of the commander, or of his deputy. The interest which had been created by this report at USAF level was so great that it was sure to be a matter of discussion with that commander. Without this information, the commander's right to know, and responsibility to act, were lost. He would not know of the situation before it was broached through commanders' channels, nor would he have time to take corrective action expeditiously to reduce any criticism to which he may be subjected.

The same situation may apply to you Comptrollers. Is there a "shortstop" in your shop who is withholding reports—that you should see from you? Use the advice and information provided in audit reports, and make it a point to call significant findings to the commander's attention.

As you know, we have increased our audit effort in the area of accounting and finance. Generally, each of these audits is of 100 or 200 hours duration and we plan to perform eight to ten such audits a year. We have found that these 100-200 hour audits, concentrated on small areas, are much more productive than the large annual audit of the entire Financial Services Activity. We are now able to concentrate on areas of known, or suspected, weakness. You are one of the sources we rely on to provide information on areas which require audit. My Liaison Officer at your headquarters forwards your suggestions for audit areas to my office. Recently, I have noticed fewer and fewer suggestions in the bimonthly reports submitted by my Liaison Officers. We are always anxious to receive your suggestions for areas of audit,

not only in the accounting and finance area, but also in the other activities and funds. I believe this is an excellent tool of management and you should take advantage of it.

ROLE OF THE AUDITOR IN CENTRAL AND BASE PROCUREMENT

On 28 August 1958, Major General W. T. Thurman, in Deputy Chief of Staff, Materiel, issued a letter based upon a policy agreement entered into by DCS/M, the Air Materiel Command, and the Auditor General, in which it was stated that it is in the best interest of the Air Force that the spirit of co-operation which exists at Headquarters, USAF, and at AMC, be extended to cover all significant contractual activities at all echelons of procurement. This letter became known as the "Air Force Policy on Auditor General Support of Procurement." In essence, the letter stated that procurement will effectively support the auditor and, in return, auditors will actively and effectively support procurement.

Following through from General Thurman's letter, I addressed a memorandum to all my district, resident, and branch offices, pointing out that auditors must actively and effectively support procurement by timely advice and reports. I am certain that closer co-operation between procurement and audit will help the Air Force do a better job, which is the objective of all. I feel that this co-operation may be most effective prior to awarding a contract—whether it be a central or local procurement action.

For example, the audit staff at one of our AMAs examined the validity of the information leading up to a buy action. Starting with the procurement document and tracing back through the requirements computations and the action resulting from the provisioning meeting, it was determined (and acknowledged by the buyer) that an over buy of \$259,000 was about to be made. Using the same approach, another over buy of \$156,000 was prevented. By this approach the Air Force will benefit by avoiding unnecessary procurement, reduce storage and transportation requirements, and of course, eliminate the possibility of bad publicity in having to dispose of over procured materiel.

Here are a few illustrations of how pre-award audit service has worked at base level. A potential contractor submitted a bid proposal of \$115,000 for runway construction. Upon reviewing the proposal, the auditor recommended to Procurement that a figure of \$93,000 was more in line with the expected cost of the contractor. The contract was negotiated for \$94,000.

In another instance, a hopeful contractor submitted a bid proposal of \$1,574,000 for a runway overlay job. It was necessary, of course, that the work be completed before winter set in.

Procurement turned the bid over to the auditor for his recommendations. After a thorough look at the contractor's financial and physical capabilities, the auditor developed information that the contractor was not capable of performing the work within his proposed contract price, nor could he complete the job before winter. Procurement awarded the contract to another contractor and at a lower price.

As a final example, a contractor submitted a bid proposal showing 841 mandays for architect and engineering services. The buyer informed the contractor that the Resident Auditor would evaluate the proposal, whereupon the contractor revised his proposal to include only 450 man-hours to do the work. This represents a considerable reduction in the contract price before any audit action was begun, and points up the psychological value of pre-audit service by the auditor which alone will save many thousands of dollars.

As you see, our goals are well identified — to provide audit assistance to Procurement prior to, as well as after, the award of contracts, and to establish a close day-to-day working relationship between Procurement personnel and the auditor.

You may wonder why I am telling you — a group of Comptrollers — about our work in the Procurement area. Your interest in our relationships with the activities of your Procurement and Production colleagues at your headquarters, and Base P & C people, may be stated simply. Needless and uneconomical procurement actions cost the Air Force money (most of the P & C funds are 400 money) which it can ill afford to spend — and your responsibilities

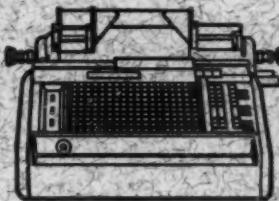
have more than a little to do with stewardship for that money. Further, our auditors are instructed to assist the commands by advising procurement personnel on accounting and auditing aspects of procurement. As the results of accounting systems and procedures in this area will ultimately wind up in your shop, our efforts in this connection have an intimate bearing upon your work.

During World War II a British transport was crossing the North Atlantic from Canada to England. Reggie and Eric were standing on the deck of the ship, looking out across the water. Reggie said, "Blimey, Eric, this is a beautiful night. The moon is shining on the water and it looks lovely." Eric said, "So tis," and then he shouted, "Hey Reggie, look out there, looks like a submarine." Reggie said, "So tis, and he has launched a torpedo." Eric said, "So he did, and it's heading straight for us." When the torpedo was about 30 feet away, Reggie said, "I hope it's one of ours."

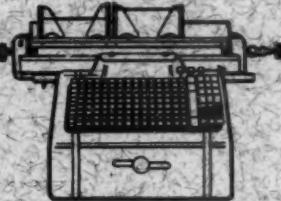
This story was told by a base commander at a Resident Auditors' Conference. His thesis was that underlying the concept of command relationship with the auditors is the fact that, as he said, "they are one of us — they are not trying to torpedo a commander; rather they are trying to help him." I sincerely hope that you are in "cahoots" with the Resident Auditor at your headquarters, and that you encourage Comptroller personnel at intermediate commands and bases within your command to be in cahoots with their Resident Auditors.

In using the word "cahoots," Webster's first definition is "partnership," rather than the second one, "collusion."

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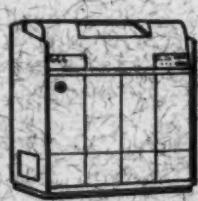


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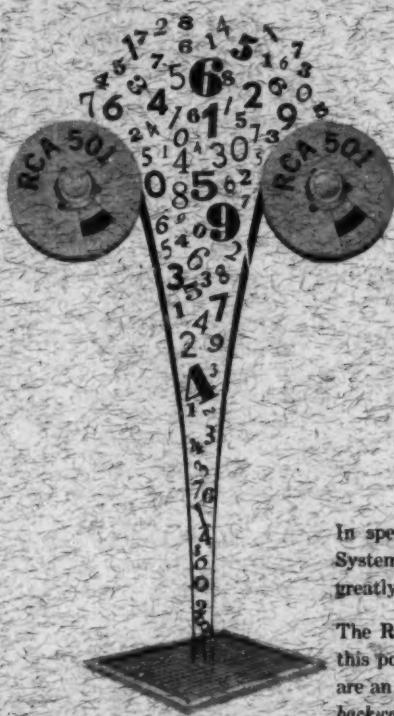


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